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Playground and Recreation

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AUGUST, 1929

Public Recreation Facilities

An Analysis
of
Construction and Operation Costs
of
Selected Facilities in Sixty American Cities

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Playground and Recreation

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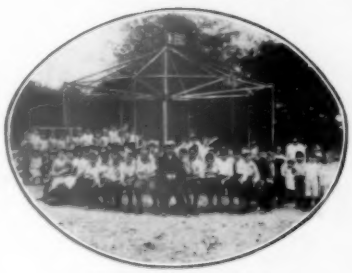
MITCHELL
BETTERBILT
Playground Apparatus

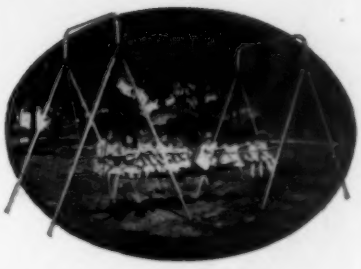
City Playground, West Allis, Wis.



The Merry Whirl

Accommodates 1 to 50 children at the same time. Children can board or leave it at will while in motion. Easily operated by a single child. Requires no supervision. Gives many years of service with minimum upkeep.

Keep The Children Off the Streets



The Swing Bob

Ideal equipment for the younger children—furnishing healthful exercise and amusement to from one to twenty children at a time. Reinforced platform and continuous guard rails insure safety. Attractively painted.

Write for this Book

It illustrates and describes the complete Mitchell line of Betterbilt Playground Apparatus, showing many of the items in actual colors. Explains just how Mitchell Equipment is built and why it is so admirably suited to school, park, resort and recreational center needs. Sent, with complete price list, on request.

Joy Gym

A popular device, uniting the functions of Giant Stride and circular traveling ring. Built with standard of O.D. steel pipe. Patented top bearing and cast aluminum rings.

Tree Climb

A novel item which gives the children all the delights of climbing trees, with unusual safety. Center post and cross arms of galvanized pipe. Easily installed in small space.

MITCHELL MANUFACTURING COMPANY, 1805 FOREST HOME AVENUE MILWAUKEE, WISCONSIN

INTERIOR OF SHELTER HOUSE, EUGENE FIELD PLAYGROUND, OAK PARK, ILLINOIS
The prize-winning structure in the architectural contest for a model play house held by the local Playground Board. The tiles were the work of the children and the murals were designed by a group of older boys and girls.

Playground and Recreation

Cost of Constructing and Operating Public Recreation Facilities

Purpose and Scope of the Report

During recent years the number of special buildings and areas provided by cities for public play and recreation purposes has been increasing steadily. To a corresponding degree the Playground and Recreation Association of America has been receiving from park and recreation authorities requests for more definite information regarding the cost of constructing and operating facilities of this nature. They want the best experience and knowledge developed throughout the country to insure the proper combination of utility, durability, and beauty in what they build. To meet this particular need, the Association has brought together specific information relative to certain types of properties which cities have developed and which they are now using to meet their community play and recreation needs. The reports which follow contain uniformly for each facility group a description of the structure or area, the construction materials used, personnel required for supervision, and as far as the information could be obtained, items covering cost of construction and operation.

The demand for such information has been most pronounced with respect to swimming pools, bath houses, bathing beaches, wading pools, tennis courts, field houses, playground shelters, athletic fields, baseball backstops, and winter sports facilities. Accordingly, data from sixty cities has been compiled regarding these particular subjects. No exhaustive study has been attempted even of the particular types of projects mentioned. Neither are all of those listed considered the best of their kind, but they have been included because of certain features or principles which they illustrate. As far as possible reports from cities in different sections of the country have been included in the hope of providing some comparison of the design, cost of construction and operation for one region with another. Generally, facilities of recent construction were selected since they should embody the latest principles of design and their statements of cost more nearly approach present price levels.

Special Factors Affecting Costs

Certain factors are found to affect the cost of building and maintaining the different types of recreation facilities described. One most generally observed is the extent to which construction work is being done by park and municipal recreation departments, particularly the former. A number of park departments reported that labor costs for such work are lower than if outside labor had been employed. Likewise, they advised that the cost of supervising and maintaining recreation projects operated by their departments shows in certain respects a labor charge below that for operation on a different basis. In some cities the required architectural and engineering service is provided by the architect of the park department or the city engineering department. One local playground and recreation department has its own designing and construction division.

Other factors definitely bearing on costs include donations of building materials or their purchase at special discounts, donations of architectural service, condition of ground on which buildings or areas are located, size, location and arrangement of projects, and charges for admission and use of facilities. Moreover, where a given facility is one of several constructed on the same area and under a blanket contract, its cost is likely to be lower. Mention of these special factors, most of which are common to the different types

of buildings and areas, is made in the construction and operating cost statements of the individual reports.

Availability of Information

Almost without exception officials and staff workers of playground, recreation, and park departments cooperated heartily in furnishing valuable information regarding their respective facilities. Many of them expect their own work to benefit by such an exchange of experience. However, not all the information needed for a full account of some of the projects is available. Facts regarding types of structures, dimensions, and the materials used are reasonably complete. The same is true of supervision—special workers and caretakers. The sections without adequate information are those containing statements of construction cost, of operating and maintenance expenses, and attendance. For instance, in a number of the reports certain important items concerning cost of constructing swimming pools, bath houses, and bathing beaches are not available. In some cases totals only for pool and bath house construction were obtainable. Certain construction cost figures are estimates furnished by engineers and architects. Mention of this fact will be found in the individual reports. Occasionally the contractor who did the construction work possessed the only record of costs. Sometimes he was unwilling or unable to give the desired items. On the other hand, many contractors gave splendid cooperation by providing accurate and valuable information. Repeatedly, architects and engineers supplied the necessary statements of construction costs. In a number of the cities which have furnished reports, specific charges for such items as light, fuel, power, and replacement of equipment are not segregated from the general expense accounts covering operation and maintenance of all park and recreation facilities.

Attendance records for some facilities are quite complete while for others there is little or no information. Such facts for swimming pools and bathing beaches were usually available, due in part to the fact that charges are made for admission and for use of suits, towels, and lockers, or to the presence of automatic registering devices through which bathers must pass. For twenty of the twenty-six tennis court units reported there are no records of attendance. Undoubtedly this is accounted for by the free use of courts with no definite registration or permit plan in use. One city in a total of sixteen keeps attendance records for its wading pool. Four others have partial attendance figures. Shelter house and field house reports likewise lack information regarding the numbers using these facilities. Presumably the managing authorities do not always consider it practical to attempt to keep such records for certain of these projects.

Numerous recreation executives expressed the need for improved methods of record keeping in order that they may have more complete information regarding the cost of their permanent recreation equipment—construction of buildings, operating expenses, and attendance. They desire to know more definitely how many people they are serving and the per capita cost of making the different types of facilities and areas available. Present methods of record keeping in many cities do not supply information sufficiently complete to provide unit cost figures to the extent originally contemplated. Despite the absence of certain important facts, it is believed the reports as a whole will prove helpful to localities planning similar kinds of public recreation facilities. In addition to the brief notations included with the report material, separate comments accompany each type of facility in which attention is directed to problems of special interest and importance. Numerous other points of significance will readily be observed in studying the reports.

Outdoor Swimming Pools

Nearly all of the twenty-nine swimming pools for which reports are furnished have been built since the war period, the majority of them within the past five years. For the most part, they are situated in public parks, a location advantageous from the standpoint of available space for parking cars, accessibility for large numbers of people, and coolness in hot weather. Moreover, the objections to noise or other annoyances frequently registered against pools located in residential sections are obviated. A few of the pools are on or adjacent to playgrounds.

The rectangular shaped pool predominates, there being twenty-one of this design. Four are oval and the remainder are irregular. It is of special interest to note the comparative uniformity in size of the different rectangular pools. Generally the length varies from 150′-175′, the width from 50′-75′. Many regard rectangular pools having dimensions within this range as being more practical for rescue purposes, more satisfactory for conducting official meets and certain aquatic games, and somewhat less expensive to supervise. However, the oval pool is also usable for water sports. Some believe it avoids the deep water corners of the rectangular pool, considered dead space, and reduces water consumption cost. Most of the pools irregular in shape are larger and probably have a higher percentage of wadable area than the rectangular pools. The Price Run Pool, Wilmington, Delaware, and the pool at Wichita, Kansas, are good examples of this condition. Illustrations of the Wichita pool and bath house appear on Page 277.

Exclusive of the Mozley Pool, Atlanta, Georgia, which has a natural bottom and is 26′ deep, the depth of the different pools varies from 0-10′, with a maximum average of 8′-9′. In many of the pools the general principle of providing a high percentage of wadable area has been observed. Outstanding examples are the Price Run Pool, Wilmington, Delaware, and the Municipal Pool, Wichita, Kansas. Some authorities advocate that one-third of the pool should be deep and two-thirds shallow in view of the estimates that 70%-80% of bathers do not swim.

The material used in construction is uniformly concrete. Reports of the various pools give specific information regarding thickness of pool walls and bottoms, separation of shallow and deep portions, size and location of inlets and drains, provision for hand rails, steps, ladders, diving towers and other equipment. Attention is drawn to the number of pools which are equipped with scum gutters, a provision generally regarded as highly important for sanitary and safety reasons. Likewise it will be noted that runways around pools are rather regularly included, with drainage of such surfaces to scum gutters or special drains thereby preventing dirt and surface water from entering the pool. Proper provision for these and other important structural needs calls for the best technical advice obtainable from engineers and architects experienced in planning and constructing outdoor swimming pools.

In most of the pools city water is used, wells and other natural sources of supply being the exception. The latter are less dependable from the standpoint of possible exhaustion during drought and danger from pollution. The number of filters and pumps, and frequently other facts regarding such equipment are reported for the different pools. Water is heated in most cases for use in showers but seldom for the pools.

Fourteen swimming pools use the recirculation method of water purification; the remainder employ the fill and draw or continuous flow methods, or a combination of the two. The Fairgrounds Park Pool, Rockford, Illinois, is soon to install recirculation equipment. The cost of installing filters and pumps is considerable but economy by saving water, greater water purity and uninterrupted use of the pool offset this initial disadvantage. One of the chief objections to the fill and draw method is loss of time in draining and refilling the pool. This is readily indicated by the reports of pools at Kewanee, Illinois; Spokane, Washington, and Wilmington, Delaware. Health authorities, both state and local, are becoming increasingly strict regarding this method. However, the fill and draw plan does permit of more thorough cleaning of pool walls and bottom.

The regularity and frequency with which water is changed in the different pools is of special interest. Of those employing the fill and draw plan or a combination of this and the continuous flow method, six change the water two or three times weekly, four once a week, and two (Philadelphia, Pennsylvania, and Salem, Massachusetts) change daily. As its attendance record indicates, the Philadelphia pool has an unusually heavy bathing load. Of the pools using the recirculation method, one changes water daily, five weekly, and seven at longer or irregular intervals. Local conditions such as adequacy of water supply, the bathing load and method of purification used are factors deter-

mining in part the frequency with which pools are emptied and refilled.

Water in the different pools is disinfected by the application of chlorine, either gas or water solution. This practice is particularly recommended by health and sanitary authorities for all pools having appreciable bathing loads. Many pools are equipped with special chlorinators but the reports indicate other methods of application, as well as the use of other kinds of disinfectants. Copper sulphate in particular is used extensively for the elimination of algae growth.

Special attention is drawn to the frequency and method of testing water. Of the twenty-nine pools listed, those in East Chicago, Indiana; Taunton, Massachusetts; Watertown, New York; Wichita, Kansas, and Wilmington, Delaware, make daily tests. In Wichita a daily test is made by the pool manager and a weekly test by the city bacteriologist. Other pools may be making tests on a similar basis but not reporting the fact. Two are making tests three times weekly, five weekly, one bi-weekly, four irregularly, and one reports no examinations. In nine instances the tests are made by the local health department, in one by the state health department, and in four by the local city chemist or bacteriologist. Increasingly, states are enacting special legislation to regulate the health and sanitary conditions affecting outdoor swimming pools and other public bathing places. Information of a practical nature with recommendations pertaining to various problems of health and sanitation will be found in a pamphlet entitled *Swimming Pools and Other Public Bathing Places* by the Joint Committee on Bathing Places of the American Public Health Association and Conference of State Sanitary Engineers. It is highly recommended to park and recreation executives.

As the individual reports show, the desirable

THAMES POOL, LONDON, ONTARIO, CANADA

Located in a large playground, this inviting pool is readily accessible to a large number of bathers. The substantial enclosure facilitates supervision of the pool yet accommodates interested spectators. (See report on Page 284)

plan of enclosing swimming pools has been followed by most of the cities. This provision limits use of the pool to those authorized, confines persons in bathing suits to the immediate vicinity and prevents dirt being carried to pool runways. Some of these advantages are shown by the illustration of the Thames Park Pool, London, Ontario, which appears on Page 274. Moreover, it simplifies collection of fees and general supervision. The enclosures are masonry walls, bath house walls, or as in most instances wire fences. The latter enables spectators to watch the bathers. Benches are provided at a number of the pools, as well as portable bleachers for special events. Other interesting types of facilities for spectators are mentioned in the reports.

Descriptive information in considerable detail will be found covering both the interior and exterior of bath houses. This is particularly true with respect to the number of dressing rooms and booths, lockers, showers and toilets. As far as possible, information has been given regarding available life saving equipment and special accommodations such as rooms for attendants, first aid and office purposes. Almost all pools and bath houses are lighted for night use, affording opportunities for swimming and bathing to adults employed during the day. In view of the importance of lighting in relation to supervision and to safety of bathers, the number, type and arrangement of such lights, particularly for the pools, are of special interest.

The various methods used to check clothing at the different pools may be examined to advantage. Thirteen bath houses use the locker system, seven use baskets, one special boxes and one pigeon holes. Spokane, Washington, supplies lockers for men, women and girls, and baskets for boys; Cleveland, Ohio, provides bags for men and baskets for women; and Watertown, New York, furnishes both baskets and lockers. As a rule the bath houses provide for both sexes; only in a few instances are they accommodated at different times.

The plan of the bath house at West Green Lake, Seattle, Washington, contained on Page 302, illustrates a type of structure advantageously designed from the standpoint of arrangement of the various facilities in their relation to each other. Special features are referred to in the notes accompanying this diagram.

Certain engineers say no absolute cost estimates for artificial outdoor swimming pools can be attempted for general application due to variations in climate, local soil conditions, drainage and water supply, and local labor and material costs, all of which vary sufficiently to render such a statement valueless. However, many park and recreation executives have indicated the desirability of making available specific facts pertaining to the construction and operating costs of a selected number of pools now in use. For this reason cost items for the pools listed have been reported as fully as possible. In a number of the statements of construction cost there will be found segregated charges for major items such as concrete work, purification system, lighting and fencing. In several instances these items have been subdivided to show the cost of both material and labor. Items of equipment, such as installation of lockers, are also included in some of the statements. Despite variations in different localities it is believed such segregated items have definite value for those considering plans for new pools and bath houses. In several cases the construction cost information for the bath house is included in the itemized statement of cost of the pool. In other instances the total only for pool or bath house, or both, is available. Attention is drawn to the comments accompanying the individual construction cost statements. They refer to the special factors that may have affected the cost in each case.

The extent to which funds for the construction of the pools and bath houses have come from tax funds or from private sources is always of interest. As the reports indicate, bond issues or special appropriations from park and recreation department budgets have been the sources of such funds in a large majority of the cases.

In collecting the data efforts were made to obtain the most essential facts regarding the number of workers required to supervise and maintain the pools, together with hours of employment, salaries and duties. According to the individual statements there is no general rule regarding the number of life guards required. Generally speaking, the minimum staff for those pools having bath house accommodations for both sexes includes two guards, a man and a woman attendant, and a janitor. The number of workers needed for the efficient operation of a given pool depends upon attendance, design of pool, method of purification, general arrangement of bath house facilities, method of handling suits, towels and lockers, and the charges for use of facilities. Undoubtedly some of the pools require a larger staff of workers because of the size and arrange-

ment of bath house facilities. Variation in the duties performed by the different kinds of workers is also a factor affecting the number of employees. The number of guards and attendants required varies with the size and design of the pool and bath house. The diagram of the bath house on Page 302 illustrates some of these elements in relation to supervision and maintenance.

The importance of proper arrangement of pool and bath house facilities is recognized also because of its effect on cost of supervision. As the various statements of operating expenses readily indicate, the payroll is the major item of upkeep. In addition, duties of workers, hours pool is in operation, and length of season are determining factors. Considerable variation in the salaries paid to swimming pool managers and life guards will be observed. The general range for the former is $100-$200 and for the latter $100-$150 per month, with a number of the cities paying $125. Next to cost of supervision, the laundry item for pools supplying suits and towels is usually the largest. The cost of replacing such materials is likewise a substantial amount.

Where the cost of operating a particular pool appears high, the extent of service provided and the number of patrons accommodated should be

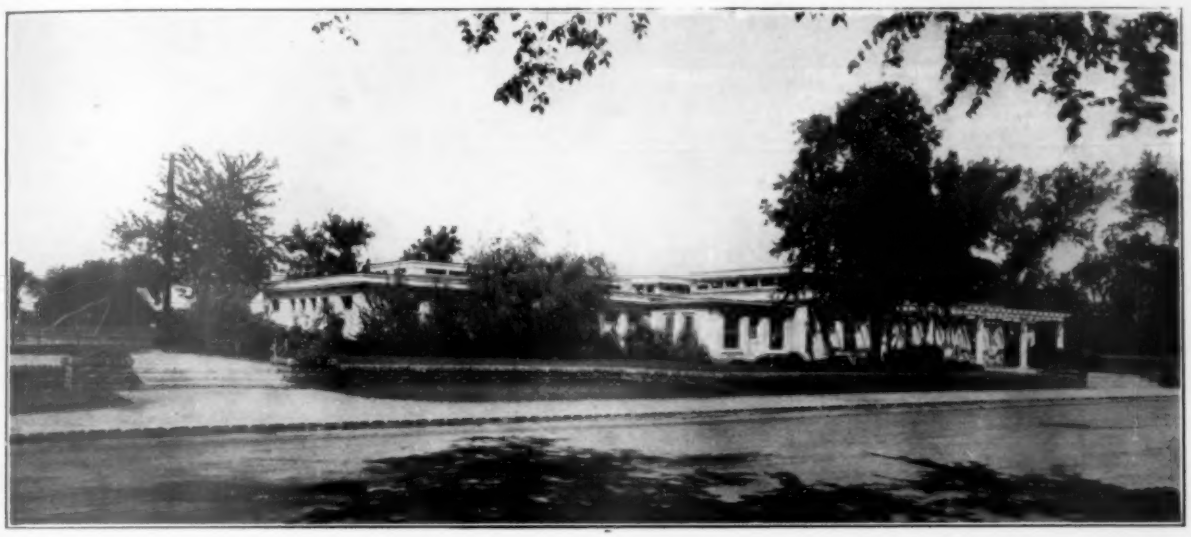
City	*Attendance*	*Expenditures*	*Gross Cost Per Swim*	*Charges*	*Gross Income*	*Net Cost Per Swim*
Baltimore Maryland	60,106	$6,356.70	$.105	Admission, suit and towel—5c per hour or fraction thereof	$3,586.95	$.046
Brockton Massachusetts (Campello Pool)	24,727	8,555.99	.346	Suit and towel—adults 10c, children 5c	1,529.60	.284
Brockton Massachusetts (Montello Pool)	29,430	8,578.51	.291	Suit and towel—adults 10c, children 5c week days, 10c Saturday afternoon and evening	1,811.35	.229
Birmingham Alabama	29,187	7,784.08	.266	Admission—adults 25c, children 15c; suit and towel—15c	6,552.40	.042
Cleveland Ohio	205,286	*10,000.00	.048	Admission and towel—adults 10c, children, a.m. free, p.m. 10c	17,249.00	....
East Chicago Indiana	*30,000	*2,515.00	.083	No charges	.....	....
Evansville Indiana	*38,000	756.44	.199	No charges	.....	....
Grand Rapids Michigan	54,206	608.00	.011	Checking clothes—5c	92.00	.009
Kewanee Illinois	37,200	1,990.04	.053	No charges	.....	....
London Ontario	25,001	1,430.00	.057	Admission—25c; suit and towel—10c	1,600.00	....
Olean New York	26,973	4,744.59	.175	Admission—adults 25c, children 5c, a.m., 10c afternoon, 25c evening; suit—cotton 10c, woolen 20c, towel—5c	4,491.90	.009
Peoria Illinois	55,572	6,551.77	.117	Admission and towel—10c; suit—adults 15c, children 10c	5,466.15	.019
Philadelphia Pennsylvania	109,443	1,922.50	.017	No charges	.....	....
Rockford Illinois	46,512	1,060.00	.022	No charges	.....	....
Salem Massachusetts	13,215	511.89	.038	Locker—10c	129.80	.028
San Francisco California	*40,000	5,173.00	.129	No charges	.....	....
Spokane Washington	78,245	3,219.10	.041	No charges	.....	....
Terre Haute Indiana	37,775	7,107.45	.188	Admission—adults 25c, children 15c before 6 p.m., thereafter 25c	8,212.00	....
Troy New York	32,463	4,562.15	.140	Admission—adults 25c, children a.m. free, 10c afternoon; towel—5c	2,997.55	.048
Tulsa Oklahoma	59,166	*7,143.75	.120	Admission—adults 15c, children a.m. free, 15c afternoon; suit—15c; towel—5c	*7,295.00	....
Waterbury Connecticut	*51,000	1,077.50	.021	No charges	.....	....
Wheeling West Virginia	52,975	2,115.00	.039	Admission—15c	7,946.45	....
Wichita Kansas	96,300	9,456.01	.098	Admission—10c Admission and towel—15c Admission and suit—20c Admission, suit and towel—25c	12,392.86	....
Wilmington Delaware	85,267	6,788.96	.079	Admission—a.m. free, p.m.—adults 25c, children 15c	6,927.55	....

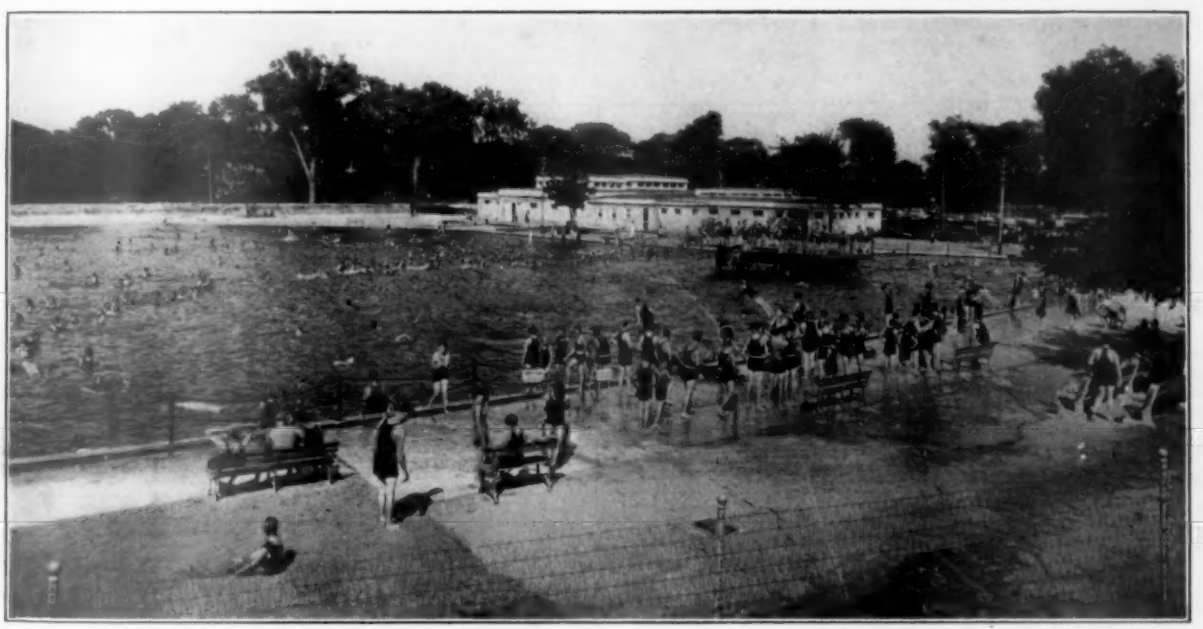
*Estimate

considered. The preceding table showing the cost per swim in the different cities has been compiled from the statements of income, operating expenses and attendance covering the most recent season for which information is available.

The reports give the rates charged bathers in the different cities for admission, suits, towels and lockers. Usually there is a lower charge for children than for adults. In some instances the admission charge and that for use of facilities is combined. According to the financial statements the income from such sources equals or exceeds operating expenses for the swimming pools in Cleveland, Ohio; London, Ontario; Terre Haute, Indiana; Tulsa, Oklahoma; Wheeling, West Virginia; Wichita, Kansas, and Wilmington, Delaware. By far the largest single source of income is general admissions.

(*See Page 298 for bibliography on Swimming Pools*)





SAND BEACH POOL AND BATH HOUSE, WICHITA, KANSAS

The commodious bath house, the expanse of water, and the many trees and shrubs combine to make this spot especially appealing. Note the large number of bathers in the wadable portion of the pool; also the generous areas available for swimming and for bathers on the beach. See report on Page 294.

SWIMMING POOLS	ATLANTA, Georgia	BALTIMORE, Maryland	BIRMINGHAM, Alabama
DESCRIPTION			
1. *Name of pool*	1. Mozley Pool	1. Gwynn's Falls	1. Ensley Natatorium
2. *Year built*	2. 1927	2. 1926	2. 1920
3. *Location*	3. Mozley Park	3. Gwynn's Falls Park	3. Ensley Park
1. *Shape*	1. Oval (irregular)	1. Square	1. Rectangular
2. *Dimensions—*	2. (a) 1850′ circumference	2. (a) 75′ x 75′	2. (a) 100′ x 50′
(a) size	(b) 2′—26′	(b) 4½′—10′	(b) 3½′—10′
(b) depth			
3. *Thickness of wall*	3. 10″ to depth of 10′, thence 54″ thick	3. 12″	3. ————
4. *Thickness of bottom*	4. 4″	4. 9″	4. ————
5. *Capacity*	5. ————	5. 35,000 gallons	5. 350,000 gallons
CONSTRUCTION			
1. *Material used in construction*	1. Concrete for walls, also bottom of shallow part; bottom of deep section not covered	1. Concrete, reenforced	1. Concrete
2. *How are deep and shallow sections separated?*	2. Concrete wall; different water in shallow section	2. No separation	2. Rope across pool
3. *Scum gutter completely surrounding pool?*	3. No	3. None	3. At deep end only
1. *Hand rail? Describe*	1. No	1. Yes; 2″ cast iron pipe at sides and deep end	1. Yes; a rope
2. *Ladders or steps—number, location*	2. Steps at entrance to pool from bath house	2. Two ladders at ends, one on each side	2. Two ladders at deep end, near corners
3. *Are they recessed?*	3. No	3. No	3. No
1. *Runway—material, width*	1. Concrete, 15′ on b.h. side	1. Concrete, 13′ wide at shallow end, 8′ at deep end, 8′ on one side, 13′ 6″ sand on other side	1. Concrete, 8′ on sides, 12′ at office end, 16′ at pump house end
2. *Slope to scum gutter or to drains?*	2. To outer edge	2. To drains	2. To drains
3. *Curb at edge of pool? Describe*	3. No	3. No	3. No
1. *Diving towers—location, description*	1. Three towers	1. No tower	1. Tower on runway approx. 20′ from deep end
2. *Spring boards and floats—location, description*	2. One board on each tower	2. Two regulation spring boards at deep end	2. One spring board on tower; one at middle of deep end.
1. *Source of water supply*	1. City (for shallow section)	1. City	1. City
2. *Kind of pipe*	2. Cast iron pipe	2. 3″ galv. iron	2. Iron pipe
3. *Inlets and outlets—number, location, size*	3. 1—4″ inlet; 1—12″ outlet	3. 1—3″ inlet at middle of shallow end; 1—8″ cast iron pipe outlet at middle of bottom at deep end	3. 4″ inlet at deep and shallow ends; 6″ outlet on pool bottom at maximum depth
4. *Water heated for pool and showers? Kind of heater*	4. No	4. For showers only	4. No
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. ————	1. Fill and draw; sufficient water flows continuously to carry surface particles thru overflow pipes	1. Recirculation
2. *Filters—number, kind, size*	2. None	2. ————	2. One, sand filter, 40′ long, 10′ diameter
3. *Pumps—name, number, type*	3. ————	3. ————	3. One, centrifugal
1. *Disinfectants used*	1. Chlorine bags drawn thru water	1. None; except chloride of lime sprinkled on bottom and walls when pool is emptied	1. Violet ray system; occasional use of copper sulphate
2. *Type and make of equipment*	2. ————	2. ————	2. ————
1. *Time required to fill pool*	1. Only shallow section emptied.	1. Eight to nine hours	1. 6½ hours
2. *Time required to empty pool*	2. ————	2. Three hours	2. 6½ hours
3. *How often is water changed?*	3. ————	3. Two or three times weekly, depending on use	3. ————
4. *How often is water tested?*	4. ————	4. Weekly	4. Tested irregularly
5. *By whom?*	5. ————	5. By Health Department	5. ————
1. *Pool area enclosed? Type, dimensions of enclosure*	1. No	1. Yes; across pool ends is No. 9 woven wire fence, 2″ mesh, 8′ high. Bath house wings extend full length of opposite sides	1. Yes, 157′ x 155′, wooden fence part of one end, b.h. encloses remainder
2. *Describe area surrounding pool*	2. Walks and lawn	2. At shallow end open area affords standing space behind fence for spectators. At opposite end steep slope leads to wooded ravine	2. Bath house on sides; office, rest rooms, and pump house at ends
3. *Facilities for spectators?*	3. Benches along side of pool	3. Benches to be provided at shallow end which borders park space, athletic field, nearby tennis courts	3. Gallery over office has seats
BATH HOUSE			
1. *Outside dimensions*	1. 92′8″ x 59′	1. Bath house wings each 91′ x 20′ 10″; central building 50′ x 30′ (separate from wings)	1. 141′ x 13′6″ each side (girls' and boys'); administration section 155′ x 25′
2. *Construction materials*	2. ————	2. Pine, unpainted	2. Frame
3. *Facilities enclosed within building?*	3. Yes	3. No	3. Yes
1. *Separate provision for sexes?*	1. Yes	1. Yes	1. Yes
2. *Basket, bag, or locker system used?*	2. Locker system	2. A light weight wooden box, 1′ 7″ x 1′ x 7″ deep	2. Locker system
3. *Provision for: (dimensions)*			
Men and boys	3. Men & boys—41′8″ x 32′4″	3. Men and boys have one entire wing, women and girls have the other	3. Men and boys—141′ x 13′ 6″
Women and girls	Women & girls—41′8″ x 32′4″		Women and girls—141′ x 13′ 6″
Number of			
Dressing rooms		Dressing rooms, men 10, women 9	Dressing rooms, men 25, women 78
Dressing booths			
Lockers	Booths, women & girls, 46 Lockers (double) men 235, women 144		Lockers, men 237, women 50
Showers	Showers, 2 each	Showers in wings on way to pool	Showers, men 5, women 4
Suits		Suits, 5,280	Suits, men 400, women 600
Towels		Towels, 5,000	
Baskets		Boxes, 1,628	
Toilets	Toilets, men 4, women 6	Toilets, 2 each	Toilets, men 2, women 3
Urinals	Urinals, 1		Urinals, 1
Lavatories	Lavatories, 2 each		Lavatories, men 1, women 2

SWIMMING POOLS (Continued)	ATLANTA, Georgia (Continued)	BALTIMORE, Maryland (Continued)	BIRMINGHAM, Alabama (Continued)
Other facilities provided		Laundry for washing and drying suits	Concession stand Office Ticket room Stock room Suit and towel room Ladies' rest room
1. *Pumps, filters, etc., located within building?*	1. ———	1. No	1. Separate building
2. *Bath house lights—location, voltage*	2. 9—100 watt in men's & women's dressing rooms 2—100 watt in men's & women's toilets 1—150 and 1—75 watt in men's & women's showers 75 watt in the 2 vestibules	2. 50 watt lights in aisles of wings, above each dressing room and in toilet and locker rooms	2. 17—75 watt in boys' & girls' sections. 5—75 watt in concession stand 1—75 watt in office 3—75 watt in ticket room 1—75 watt in stock room
3. *Lights for pool area—location, type, voltage*	3. 4—150 watt on each tower, 150 watt lights around pool approx. 100' apart	3. 150 watt lights on 12' iron posts across ends of pool; smaller voltage lights along wings of bath house	3. 4 flood lights on the two pools— 1—1,000 watt in each corner 3—300 watt on pump house 3—300 watt in balcony
What life saving equipment present?	Boat Physician on call	Lung motor and first aid supplies in each wing	First aid supplies Physician on call
POOL CONSTRUCTION COST	TOTAL (estimate) $20,517.69 (Does not include much work done by county labor.)	Pool and bath house....$40,881.33	TOTAL (approx.) $45,000 (Built by Tennessee Coal & Iron Co. and turned over to city. Company used much material from its factories.)
BATH HOUSE CONSTRUCTION COST	General construction ....$14,036.04 Roofing ..... 1,500.00 Plumbing (incl. showers) 2,100.00 Railing ..... 110.00 Interior finishing and runways ..... 6,000.00 Lighting ..... 462.75 Decorating ..... 400.00 Lockers ..... 2,373.52 TOTAL.....$26,982.31	See pool construction cost statement	Items not available
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Life guard—$4 per day Attendants (4)—5:30—10:30 a.m., 2:30—9:30 p.m., $3.25 per day, charge of showers, locker rooms, and cleaning	Life guards (6)—1, 8 hrs., 40c per hr., head guard and general manager; 5, 8 hrs., 35c per hr. Women attendants (5)—8 hrs., 25c per hr., attend women's section Locker boys (6)—8 hrs., 30c per hr., attend men's section Engineer—10 to 14 hrs., 35c—38c per hr., engineer & janitor Engineer's helper—10 to 14 hrs., 25c—30c per hr.	Manager—12 hrs., $145 per mo., general supervision Cashier—10 hrs., $30 per wk., sells tickets Life guards (2)—12 hr. shifts, 12—12, 1 at $35 per wk., 1 at $27.50 per wk., guard duty, care of pumps and filters Colored maids (3)—10 hrs., $15 per wk., laundry work, supervise showers Locker rm. girl—10 hrs., $15 per wk., keeps order Towel desk girl—10 hrs., $20 per wk. Locker boy—10 hrs., $18 per wk., keeps order Desk boy—10 hrs., $18 per wk., at counter for towels and suits
1. *Fees charged — admission, suits, towels, etc.*	1. Admission, 10c, children under 15 free; cotton suit 25c, woolen suit 50c; towel 10c	1. At entrance each bather receives ticket bearing hour of admission. 5c charge for each hour or fraction thereof, including suit and towel	1. Admission, adults 25c, children 15c; suit and towel 15c.
2. *Suits supplied all bathers?*	2. No	2. If desired	2. No
3. *Suits and towels laundered at pool?*	3. No	3. Yes	3. Yes
1. *Time limit for bathers?*	1. No	1. No	1. No
2. *Hours open*	2. Seven hours	2. 9 a.m.—9 p.m.	2. 6 a.m.—10 p.m.
3. *Days per week*	3. Seven days per week	3. Seven days per week	3. Seven days per week
4. *Length of season*	4. May 29th—Sept. 14th	4. June 15th—Sept. 15th	4. June 1st—Sept. 15th
5. *Attendance*	5. 1925—12,381 1926— 7,970 1927— 9,422 (Attendance for children not kept.)	5. 1925—38,712 1926—76,049 1927—64,315 1928—60,106	5. 1926 1927 1928 June 12,682 8,164 6,937 July 12,772 11,436 11,541 Aug. 10,353 6,305 9,124 Sept. 4,540 470 1,585 TOTAL 40,347 26,375 29,187 (Attendance decreasing since opening of other pools.)
1. *Source of construction funds*	1. City appropriation; labor furnished by county	1. Park funds	1 Tennessee Coal & Iron Co.
2. *If receipts exceed expenses, how is balance used?*	2. ———	2. ———	2. ———
3. *If deficit, how met?*	3. ———	3. General park fund	3. From playground fund
4. *Provision for depreciation*	4. None	4. None	4. ———
FINANCIAL STATEMENT *Expenditures*		1928 Payroll .....$4,424.40 .... TOTAL $6,356.70	1928 Payroll .....$4,864.41 Light and power ..... 1,090.36 Fuel ..... 11.90 Water ..... 496.54 Equipment ..... 145.85 Supplies ..... 968.17 Miscellaneous ..... 206.85 TOTAL..... $7,784.08 1927—TOTAL..... $9,984.44 1926—TOTAL.....$12,515.17
Receipts		1925 .....$1,742.30 1926 ..... 3,720.18 1927 ..... 3,269.44 1928 ..... 3,586.95	Admission ..... $5,825.40 Fees from suits ..... 460.20 Rental of tubes ..... 33.95 Sale of caps ..... 184.60 Sale of belts ..... 18.25 TOTAL..... $6,522.40 1927—TOTAL..... $6,455.44 1926—TOTAL..... $11,056.20

SWIMMING POOLS	BROCKTON, Massachusetts	BROCKTON, Massachusetts	CLEVELAND, Ohio
DESCRIPTION			
1. *Name of pool*	1. Campello Pool	1. Montello Pool	1. Woodland Hills Park Pool
2. *Year built*	2. 1926	2. 1926	2. 1927
3. *Location*	3. Adjacent to playground	3. Adjacent to wading pool and proposed playground.	3. Woodland Hills Park
1. *Shape*	1. Rectangular	1. Rectangular	1. Rectangular, with arc extension on deep side
2. *Dimensions—* (a) *size* (b) *depth*	2. (a) 120′ x 60′ (b) 3′ 6″—9′	2. (a) 120′ x 60′ (b) 3′ 6″—9′	2. (a) 400′ x 120′ (b) 6″—8′ 6″ (side to side)
3. *Thickness of wall*	3. 12″	3. 12″	3. 10″
4. *Thickness of bottom*	4. 12″	4. 12″	4. 8″
5. *Capacity*	5. 300,000 gallons	5. 300,000 gallons	5. 1,000,000 gallons
CONSTRUCTION			
1. *Material used in construction*	1. Concrete	1. Concrete	1. Concrete
2. *How are deep and shallow sections separated?*	2. No division	2. No division	2. Wire fence extends from bottom 2′ above water
3. *Scum gutter completely surrounding pool?*	3. Yes	3. Yes	3. Yes
1. *Hand rail? Describe*	1. No	1. No	1. No
2. *Ladders or steps—number, location*	2. Concrete steps center of shallow end; two brass ladders at deep end; three on one side; two on other side	2. Concrete steps at corners of shallow end; brass ladders at corners of deep end; ladder each side 20′ from deep end	2. Four ladders at deep side
3. *Are they recessed?*	3. No	3. No	3. No
1. *Runway—material, width*	1. Concrete, 7′ wide	1. Concrete, 15′ wide	1. Concrete, 20′ at deep side, 10′ elsewhere
2. *Slope to scum gutter or to drains?*	2. To shrubbery (outer edge)	2. To drains	2. To drains
3. *Curb at edge of pool? Describe*	3. Yes; 12″ wide, 6″ high, surrounds pool	3. Yes; 12″ wide, 6″ high	3. No
1. *Diving towers—location, description*	1. None	1. None; but tower on side opposite bath house with two slides at middle of pool	1. Steel tower, at deep side, 8′ and 15′ levels
2. *Spring boards and floats—location, description*	2. Two diving boards at deep end, 10′ from sides	2. Two diving boards at deep end, 20′ from sides	2. Two spring boards at deep side
1. *Source of water supply*	1. City	1. City	1. City
2. *Kind of pipe*	2. Galv. iron	2. Galv. iron	2. Wrought iron
3. *Inlets and outlets—number, location, size*	3. 5—2″ inlets, 3 center side wall, 2 in corners at shallow end; 2—6″ outlets to filter; 2—6″ outlets to drain pool	3. 4—2″ inlets 15′ apart at shallow end; 2—6″ drains, 2—6″ outlets to filter	3. 6—4″ and 3—6″ inlets evenly distributed; 1 main drain at maximum depth
4. *Water heated for pool and showers? Kind of heater*	4. For showers only; 2 Kompak, type "S"	4. For showers only	4. For showers only
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Recirculation	1. Recirculation	1. Recirculation
2. *Filters—number, kind, size*	2. Two, Permutit filters, 8′ high, 167 gallons each per second	2. Two, Permutit filters	2. Four, Graver, pressure type, 24′ x 8′
3. *Pumps—name, number, type*	3. One, Water Turbine, electric power	3. One, Water Turbine, electric power	3. One, Dayton-Dowd duplex, 2,000 gallons per minute
1. *Disinfectants used*	1. Chlorine gas, continuous; alum	1. Chlorine gas, continuous; alum; soda ash; small quantities of copper sulphate once each week	1. Chlorination, continuous
2. *Type and make of equipment*	2. Wallace & Tiernan	2. Wallace & Tiernan, No. 13470	2. Wallace & Tiernan
1. *Time required to fill pool*	1. Ten hours	1. Ten hours	1. Eighteen hours
2. *Time required to empty pool*	2. Six hours	2. Six hours	2. Eight hours
3. *How often is water changed?*	3. ———	3. ———	3. Three times during season
4. *How often is water tested?*	4. Weekly	4. ———	4. ———
5. *By whom?*	5. ———	5. ———	5. ———
1. *Pool area enclosed? Type, dimensions of enclosure*	1. Yes; including playground; Page chain link, irregular shape; approx. 330′ x 190′	1. Yes; 174′ x 100′; Page chain link fence 8′ high	1. Yes; wire fence 50′ from pool, on 3 sides; bldg. on 4th side
2. *Describe area surrounding pool*	2. Shrubbery and lawn, bath house and three pergolas	2. 20′—30′ of lawn at ends and on side between walk and fence; concrete steps to bath house on other side	2. Sand, lawn, shrubbery
3. *Facilities for spectators?*	3. Pergolas have canopies and chairs for bathers and spectators	3. None	3. Grandstand in building overlooking pool
BATH HOUSE			
1. *Outside dimensions*	1. Approx. 102′ x 26′4″	1. 128′ x 29′	1. 402′ x 75′
2. *Construction materials*	2. Wood shingle siding, shingle roof, concrete floors and foundation	2. Frame building, slate roof, concrete foundation and floors	2. Brick and concrete
3. *Facilities enclosed within building?*	3. Yes	3. Yes	3. No
1. *Separate provision for sexes?*	1. Yes	1. Yes	1. Yes
2. *Basket, bag, or locker system used?*	2. Locker system	2. Locker (10″ x 14″ x 21″) system	2. Baskets for women; bags for men
3. *Provision for: (dimensions)* *Men and boys* *Women and girls*	3. Men and boys—29′ x 26′4″ Women and girls—29′ x 26′4″	3. Men & boys—49′ x 29′ Women & girls—49′ x 29′	3. Men and boys—85′ x 65′ Women and girls—85′ x 65′
Number of			
Dressing rooms	Booths, women 26	Booths, women 38	Dressing rms., men 222, women 222
Dressing booths	Hairdriers, 2		
Lockers	Lockers, men 125, boys 288, women 180	Lockers, men 300, boys 251, women and girls 246	
Showers	Showers, men 3, women 3	Showers, men 4, women 4	Showers, men 5, women 4
Suits	Suits, men 1,050, boys 1,400, women and girls 1,050	Suits, men 1,000, boys 1,000, women and girls 1,000	
Towels	Towels, 3,000	Hairdriers, 5	Towels, 6,000
Baskets			Baskets, 2,500
Toilets	Toilets, men 2	Toilets, men 2, women 3	Toilets, 18
Urinals	Urinals, 2	Urinals, 2	Urinals, 11
Lavatories	Lavatories, men 1	Lavatories, men 2, women 2	Lavatories, 20

SWIMMING POOLS (Continued)	BROCKTON, Massachusetts (Continued)	BROCKTON, Massachusetts (Continued)	CLEVELAND, Ohio (Continued)
Other facilities provided	Office & checking room—30' x 26', 2 checking counters, cash register 2 fire places 2 bubblers	Bubblers, men 1, women 1 Office & checking room—46' x 39', 2 checking counters 2 fire places Small first aid room with supplies	Office, 12' x 10' Attendants' room 2 employees' locker rooms
1. *Pumps, filters, etc., located within building?* 2. *Bath house lights—location, voltage* 3. *Lights for pool area—location, type, voltage*	1. Yes 2. 4—60 watt in boys' and girls' sections, 13—40 watt in check room 3. 4—500 watt flood lights atop bath house	1. Yes 2. 6—50 watt in boys' & girls' sections, 10—40 watt on sides & 2 clusters of 5 small globes each in office and checking room. 3. 3—500 watt flood lights from bath house roof	1. Yes 2. 110 volts 3. 12—1,000 watt flood lights, 40' high
What life saving equipment present?	4 life rings	2 life rings	Pulmotor promptly on call 2 life boats Ropes
POOL CONSTRUCTION COST	Plumbing & water supply Material ...$7,282.93 Labor ..... 1,595.97 $8,878.90 Purification system Material ...$2,030.00 Labor ..... 261.00 3,536.00 Fence Material ....$2,030.00 Labor ..... 82.00 2,112.00 .... TOTAL.....$17,258.90 (Remaining items not available. Labor costs higher due to overtime, night and day work.)	Plumbing & water supply Material ...$6,927.43 Labor ..... 1,948.89 $8,876.32 Purification system ..... 4,670.00 Fence ..... 930.00 .... TOTAL.....$22,299.32 (Remaining items not available. Labor costs higher due to overtime, night and day work.)	**Pool and bath house $291,800.00** (Contract; items not available)
BATH HOUSE CONSTRUCTION COST	Lockers ..... $2,747.00 .... TOTAL.....$35,000.00 (Remaining items not available. Labor costs higher due to overtime, night and day work.)	Lockers ..... $3,858.00 .... TOTAL.....$35,000.00 (Remaining items not available. Labor costs higher due to overtime, night and day work.)	See pool construction cost statement
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Men life guards (5)—9 hrs., $25 per wk., part time on grounds Girl life guards (3)—6 to 7 hrs., $20 per wk., alternate as checkers and cashier Attendant—$30 per wk., caretaker year round, general work	Cashier—$20 per wk., keeps office and checks Men life guards (4)—8 hrs., $25 per wk., help on grounds Girl life guards (3)—8 hrs., $20 per wk., also mend suits Attendant—12 hrs., $35 per wk., year round, charge of grounds and buildings, pumps and filters	Superintendent—8 hrs., $2,400 per yr., general supervision Cashiers (2)—8 hrs., $4.50 per day Life guards (6)—8 hrs., $4.50 per day Attendants (31)—8 hrs., $3—$4.50 per day, take tickets, clean Matron—8 hrs., $4 per day, supervise rooms
1. *Fees charged — admission, suits, towels, etc.* 2. *Suits supplied all bathers?* 3. *Suits and towels laundered at pool?*	1. Admission free; suit & towel—adults 10c, children 5c 2. Yes 3. ———	1. Admission free; suit & towel—adults 10c, children 5c weekdays, 10c Saturday afternoon & evening 2. Yes 3. No	1. Admission and towel—adults 10c, children (under 16) free in a.m., 10c in afternoon 2. No 3. No
1. *Time limit for bathers?* 2. *Hours open* 3. *Days per week* 4. *Length of season* 5. *Attendance*	1. Yes; Mon., Wed., & Sat.—boys; 11—12:30, 2—4, 7—8; girls: 10—11:00, 4—6. Time reversed on Tues. & Thurs.; Sundays, boys: 2:30—4:30; girls: 4:30—6:30 2. 10 a.m.—8 p.m. 3 Seven days per week 4. Approx. four months 5. 1927 1928 June 5,605 4,489 July 10,074 12,380 Aug. 7,019 12,475 Sept. 2,029 1,312 TOTAL 24,727 30,656	1. ——— 2. 10 a.m.—8 p.m. 3. ——— 4. Approx. four months 5. 1927 1928 June 5,097 4,378 July 13,309 15,134 Aug. 8,800 15,568 Sept. 2,224 1,257 TOTAL 29,430 36,337	1. No 2. 10 a.m.—10 p.m. 3. Seven days per week 4. Seventy-five days 5. 1928—205,286
1. *Source of construction funds* 2. *If receipts exceed expenses, how is balance used?* 3. *If deficit, how met?* 4. *Provision for depreciation*	1. Privately financed 2. ——— 3. Private endowment for maintenance; definite allowance each year 4. None	1. Privately financed 2. ——— 3. Private endowment for maintenance; definite allowance each year 4. None	1. Municipal bond issue 2. Returned to city general fund 3. ——— 4. ———
FINANCIAL STATEMENT *Expenditures*	1927 Payroll .....$5,136.30 Light and power ..... 203.30 Gas ..... 83.65 Water ..... 134.20 Taxes ..... 95.40 Purification ..... 226.00 Exhibitions ..... 5.00 Laundry ..... 1,257.33 Telephone ..... 50.65 Soap ..... 27.80 Office supplies ..... 38.61 Insurance ..... 749.18 Miscellaneous ..... 548.57 TOTAL.....$8,555.99	1927 Payroll .....$5,063.29 Light ..... 181.11 Gas ..... 135.19 Taxes ..... 241.20 Water ..... 134.00 Exhibitions ..... 173.31 Purification ..... 346.94 Telephone ..... 64.76 Laundry ..... 1,534.34 Soap ..... 27.80 Insurance ..... 320.45 Miscellaneous ..... 356.12 TOTAL.....$8,578.51	Payroll .....$7,500.00 Light and power ..... 150.00 Purification ..... 50.00 .... Averages approx.....$10,000 00 (No charge for water)
Receipts	Fees from suits and towels $1,529.60 TOTAL.....$1,529.60	Fees from suits and towels $1,811.35 TOTAL.....$1,811.35	Admission .....$17,249.00 TOTAL.....$17,249.00

SWIMMING POOLS DESCRIPTION	EAST CHICAGO, Indiana	EAST MILTON, Massachusetts	EVANSVILLE, Indiana
1. *Name of pool*	1. Tod Park Municipal Pool	1. Cunningham Pool	1. Garvin Park Pool
2. *Year built*	2. 1925	2. Pool—1920 Bath house—1927	2. 1915
3. *Location*	3. Tod Park	3. In public park near gymnasium and tennis courts	3. ———
1. *Shape*	1. Rectangular	1. Kidney shaped	1. Rectangular
2. *Dimensions—* *(a) size* *(b) depth*	2. (a) 150′ x 50′ (b) 18″—8′ 6″	2. (a) 300′ x 100′ (b) 0—9′ (from edges to center)	2. (a) 100′ x 50′ (b) 2½′—8′
3. *Thickness of wall*	3. 11″ (top)—23″ (base)	3. No wall	3. ———
4. *Thickness of bottom*	4. 10″	4. ———	4. ———
5. *Capacity*	5. 300,000 gallons	5. 750,000 gallons	5. 147,000 gallons
CONSTRUCTION			
1. *Material used in construction*	1. Concrete and steel, finished surface of marble chips and white cement	1. Concrete bottom under part of pool; sandy beach of irregular contour	1. Concrete
2. *How are deep and shallow sections separated?*	2. Iron railing	2. No division	2. Life line at 3½′ depth
3. *Scum gutter completely surrounding pool?*	3. Yes	3. No	3. Yes
1. *Hand rail? Describe*	1. No; scum gutter used	1. No	1. No
2. *Ladders or steps—number, location*	2. Two ladders at deep end 10′ from sides	2. None	2. Steps in corners of shallow end; metal ladder of 2″ pipe in one corner of deep end
3. *Are they recessed?*	3. No	3. ———	3. No
1. *Runway—material, width*	1. Concrete, 14′ wide	1. No; sand beach	1. Concrete, 10′ on sides, 15′ on one end, 20′ on other end
2. *Slope to scum gutter or to drains?*	2. To drains	2. ———	2. To drains
3. *Curb at edge of pool? Describe*	3. No; walk slopes from pool	3. No	3. No
1. *Diving towers—location, description*	1. Steel tower at center of deep end	1. No diving tower	1. One main tower at deep end with 2 wooden platforms on sides at 6′ height, one in center at 10′ height
2. *Spring boards and floats—location, description*	2. Board on each side of tower	2. Diving board on float in center of pond	2. One spring board at deep end, between tower and corner
1. *Source of water supply*	1. City	1. Wells	1. City
2. *Kind of pipe*	2. Cast iron	2. Cast iron	2. ———
3. *Inlets and outlets—number, location, size*	3. 3—3″ inlets at shallow end; 2—6″ outlets at bottom of deep end	3. 1—3″ inlet pipe at one side; 1—1′ square overflow at one end. Water is pumped out of pool	3. 8″ inlet at shallow end; 8″ outlet, center bottom
4. *Water heated for pool and showers? Kind of heater*	4. For showers only	4. For showers only, Richard and Boynton heater, 500 gal. capacity	4. No
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Recirculation	1. Recirculation	1. Fill and draw
2. *Filters—number, kind, size*	2. Two, Graver, 8′	2. Concrete sand filter, 30′ x 18′	2. None
3. *Pumps—name, number, type*	3. One, Dayton-Dowd	3. Centrifugal pump	3. None
1. *Disinfectants used*	1. Chlorination, continuous; alum	1. Chlorination, intermittent	1. 2½ lbs. copper sulphate in bag drawn through water after filling
2. *Type and make of equipment*	2. Wallace and Tiernan	2. ———	2. None
1. *Time required to fill pool*	1. Eight hours	1. Eight days	1. ———
2. *Time required to empty pool*	2. Twelve hours	2. Eight days	2. ———
3. *How often is water changed?*	3. Every 60 days	3. ———	3. Three times weekly
4. *How often is water tested?*	4. Daily	4. ———	4. Tested casually
5. *By whom?*	5. City chemist	5. ———	5. Health Department
1. *Pool area enclosed? Type, dimensions of enclosure*	1. Yes; 6′ chain link fence, approx. 180′ x 80′	1. No	1. Yes; one side and end, 8′ wooden fence, one end bath house; one side 12′ tennis backstops
2. *Describe area surrounding pool*	2. Park	2. Sandy beach on one side, turf bank, shade trees	2. Shrubbery, bath house, lighted tennis courts
3. *Facilities for spectators?*	3. Covered observation platform outside of pool fence, approx. 70′ x 15′, removable benches	3. None	3. Few benches near bath house
BATH HOUSE			
1. *Outside dimensions*	1. 46′ x 42′	1. ———	1. 95′ x 50′
2. *Construction materials*	2. Brick	2. Concrete foundation and floors, slate shingles, sheathing for inside walls, novelty siding outside	2. Frame
3. *Facilities enclosed within building?*	3. Yes	3. Yes	3. Yes
1. *Separate provision for sexes?*	1. No; different days	1. Yes	1. Yes
2. *Basket, bag, or locker system used?*	2. Basket system	2. Locker system	2. Basket system
3. *Provision for: (dimensions)* *Men and boys* *Women and girls*	3. ———	3. ———	3. Men—30′ x 25′ Boys—30′ x 25′ Women and girls—50′ x 30′
Number of			
Dressing rooms			Dressing rooms, men and boys one each, women and girls 26
Dressing booths	Booths, 20	Dressing booths, men 14, women 14	
Lockers		Lockers, 226 each	Lockers, 6 for employees
Showers		Showers, men 5, women 7	Showers, 4 outside
Suits			
Towels			
Baskets	Baskets, 500		Baskets, 403
Toilets	Toilets, 6	Toilets, men 2, women 4	Toilets, men 2, boys 2, women and girls 3
Urinals	Urinals, 4	Urinals, 1	Urinals, men 1, boys 1
Lavatories	Lavatories, 1	Lavatories, 2 each	

SWIMMING POOLS (Continued)	EAST CHICAGO, Indiana (Continued)	EAST MILTON, Massachusetts (Continued)	EVANSVILLE, Indiana (Continued)
Other facilities provided	2. Checking rooms, 14′ x 11′ 3″, 15′ x 11′ 3″ Storage room, 8′ x 5′ Hallway between checking rooms, 14′ 6″ x 11′ 3″	Bubbler in boys' and in girls' sections	Combined office and check room used by attendants, life guards, and instructors
1. *Pumps, filters, etc., located within building?*	1. Yes; in basement	1. No	1. Not any
2. *Bath house lights—location, voltage*	2. 220 volts	2. 4—50 watt in boys' and girls' sections, 1—50 watt in heating room, check room and store room	2. ———
3. *Lights for pool area—location, type, voltage*	3. Pool not lighted	3. None	3. 6—100 watt, 3 each side of pool, ornamental type, 1—100 watt over center of pool
What life saving equipment present?	Life saving hooks	Lung motor	Pulmotor Tubes Life pole First aid kit
POOL CONSTRUCTION COST	Excavation and grading..$ 1,500.00 Concrete work..... 14,909.50 Plumbing and water supply 2,415.00 Purification system ..... 3,600.00 TOTAL.....$22,424.50 (Fence and equipment included in general contract)	Excavation and grading..$17,500.00 Rock excavation ..... 5,500.00 Concrete work..... 6,500.00 Plumbing and water supply ..... 1,600.00 Purification system..... 4,750.00 Engineering service..... 2,900.00 Miscellaneous equipment.. 1,250.00 TOTAL .....$40,000.00 (Pool built on swampy ground adding to cost. Figures are estimates by consulting engineers and builders.)	Contract including pool and bath house $9,971.00
BATH HOUSE CONSTRUCTION COST	General construction Material ....$5,391.50 Labor ..... 6,200.00 $11,591.50 Plumbing (incl. showers) ..... 2,800.00 Shelves for baskets.... 365.00 TOTAL.....$14,756.50 (Lighting part of general contract; designing work done by Park Board)	General construction.....$ 9,696.50 Plumbing (incl. showers) 3,875.16 Lighting ..... 200.00 Lockers ..... 1,780.00 TOTAL $15,551.66	See construction cost of pool
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Managers (2)—9 a.m.—8 p.m., man $175 per mo., woman $60 per mo., work on alternate days, general supervision Life guard—9 a.m.—9 p.m., $150 per mo. Janitor—7 a.m.—5 p.m., 40c per hr. Check boys (2)—9 a.m.—9 p.m., 30c per hr. Check girls (2)—9 a.m.—9 p.m., 30c per hr.	Manager—7 hrs., $5,000 per year, in charge of entire park Life guard—8 hrs., $20 per week Attendant—8 hrs., $20 per week, supervises showers, cleans b. h. Matrons (2)—8 hrs., $20 per week, check, supervise girls' quarters	Supervisor (of 4 pools)—$73.46 per season (1 pool) Life guards (3)—$497.93 per season Attendant—$100 per season
1. *Fees charged — admission, suits, towels, etc.*	1. No charges unless bathers forget suits; then suits rented at 15c, towels 5c	1. 10c registration fee at opening of season; no charge thereafter	1. No charges
2. *Suits supplied all bathers?*	2. No	2. None supplied	2. None supplied
3. *Suits and towels laundered at pool?*	3. No	3. No	3. No
1. *Time limit for bathers?*	1. Only married couples after 6 p.m.	1. No	1. One hour periods
2. *Hours open*	2. 9 a.m.—8:30 p.m.	2. 9 a.m. to 5 p.m., 6 to dark. Sundays 2 to 6 p.m.	2. 9:30-10:45, 1-4, 6:30-9
3. *Days per week*	3. Seven days per week	3. Seven days per week	3. Seven days per week
4. *Length of season*	4. Three months	4. Twelve weeks	4. Eleven weeks
5. *Attendance*	5. Average 10,000 per month	5. 1924—19,148 1925—17,805 1926—16,148 1927—16,046	5. Estimated attendance— 1927—38,000 1928—50,000
1. *Source of construction funds*	1. From park maintenance funds saved over a period of years for this purpose	1. Privately financed	1. Park Department budget
2. *If receipts exceed expenses, how is balance used?*	2. ———	2. ———	2. ———
3. *If deficit, how met?*	3. By park maintenance fund	3. Endowment fund	3. ———
4. *Provision for depreciation*	4. Maintained as a part of park system	4. None	4. None
FINANCIAL STATEMENT *Expenditures*	1927 (*estimate*) Payroll .....$1,700.00 Light and power ..... 90.00 Fuel ..... 200.00 Water ..... 400.00 Purification ..... 50.00 Supplies ..... 75.00 TOTAL.....$2,515.00		1927 Payroll ..... $671.39 Light and power..... 85.05 Total $756.44
Receipts	Receipts negligible	Registration fees .....$200.00 TOTAL $200.00	No receipts

SWIMMING POOLS	GRAND RAPIDS, Michigan	KEWANEE, Illinois	LONDON, Ontario
DESCRIPTION			
1. *Name of pool*	1. Briggs Pool	1. Northeast Park Pool	1. Thames Pool
2. *Year built*	2. 1927	2. 1923	2. 1925
3. *Location*	3. ———	3. ———	3. In large playground
1. *Shape*	1. "E" shaped	1. Oval (irregular)	1. Rectangular
2. *Dimensions—*	2. (a) 125′ x 75′	2. (a) 310′ x 144′	2. (a) 180′ x 81′
(a) size	(b) 3′ 4″—8′ (deep sections at two long extremities)	(b) 0—8′	(b) 0—8′
(b) depth			
3. *Thickness of wall*	3. 10″	3. 12″	3. 10″
4. *Thickness of bottom*	4. 6″	4. Gravel and sand	4. 6″
5. *Capacity*	5. 265,125 gallons	5. 850,000 gallons	5. 450,000 gallons
CONSTRUCTION			
1. *Material used in construction*	1. Concrete, reenforced, expansion joints	1. Concrete (walls)	1. Concrete, reenforced
2. *How are deep and shallow sections separated?*	2. Warning wire with sign 5′ above water	2. Rope with buoys	2. Safety iron fence
3. *Scum gutter completely surrounding pool?*	3. Yes	3. None	3. Yes
1. *Hand rail? Describe*	1. Yes; 1½″ galv. pipe	1. One deep end only, 1½″ galv. pipe	1. Yes; scum gutter
2. *Ladders or steps—number, location*	2. Two ladders in each corner of deep end; two entrance slips at shallow end; shelf 18″ wide at depth of 3½′ surrounds pool	2. One ladder at deep end	2. Two ladders on end, three on each side
3. *Are they recessed?*	3. Yes	3. No	3. No
1. *Runway—material, width*	1. Concrete, 8′ wide	1. Concrete, 12′ wide	1. Concrete, 10′ wide
2. *Slope to scum gutter or to drains?*	2. To scum gutter	2. To outer edge	2. To drains near inner edge of walk
3. *Curb at edge of pool? Describe*	3. No	3. Yes; 1½′ high, 6″ wide, concrete	3. No
1. *Diving towers—location, description*	1. No towers	1. One tower at deep end	1. One tower of 2″ iron pipe at center of deep end
2. *Spring boards and floats—location, description*	2. One spring board at end of each deep section	2. One spring board in center of deep end	2. Two boards on tower, one on each side
1. *Source of water supply*	1. City	1. City	1. City
2. *Kind of pipe*	2. Galvanized	2. Cast iron	2. Cast iron
3. *Inlets and outlets—number, location, size*	3. 2—6″ inlets, at inner side of deep sections; 2—8″ outlets, at deep ends	3. 1—2½″ inlet at deep end; Outlet at bottom of pool, deep end, drains direct to creek 2 blocks from park	3. 4—6″ inlets from filter; 1—10″ outlet to filter; 1—6″ outlet to river
4. *Water heated for pool and showers? Kind of heater*	4. No	4. For showers only	4. No
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Fill and draw; continuous flow	1. Continuous flow; partially emptied and refilled at intervals	1. Recirculation
2. *Filters—number, kind, size*	2. None	2. None	2. One, 12 x 8 Westaway sand filter, gravity type
3. *Pumps—name, number, type*	3. None	3. None, direct flow from city mains	3. One, centrifugal, motor type
1. *Disinfectants used*	1. Chlorination, continuous; 216 lbs. copper sulphate weekly	1. Chloride of lime dissolved and circulated in water when considered necessary	1. Chlorination, continuous; chloride of lime sprinkled
2. *Type and make of equipment*	2. ———	2. None	2. Wallace & Tiernan
1. *Time required to fill pool*	1. Six hours	1. One week, due to limited city supply	1. Twelve hours
2. *Time required to empty pool*	2. Four hours	2. ———	2. Twelve hours
3. *How often is water changed?*	3. Weekly	3. Never completely changed	3. ———
4. *How often is water tested?*	4. ———	4. No regular tests	4. Weekly
5. *By whom?*	5. ———	5. By State Health Department, when made	5. Board of Health
1. *Pool area enclosed? Type, dimensions of enclosure*	1. Yes; chain link fence	1. No	1. Yes; 6′ mesh fence
2. *Describe area surrounding pool*	2. Concrete walk, lawn and shrubbery	2. Open park space, lawn, shrubbery, trees	2. Playground surrounding pool
3. *Facilities for spectators?*	3. Temporary bleachers can be erected outside fence to accommodate 4,000	3. A few benches; cars park on two sides of pool	3. Bleachers outside fence for approx. 400
BATH HOUSE			
1. *Outside dimensions*	1. 114′ x 46′ 6″	1. Main building—50′ x 22′ Addition—62′ x 44′ (approx.)	1. 120′ x 25′
2. *Construction materials*	2. Cement plaster on reenforced expanded metal	2. Wood, cement floors, asphalt roofing	2. ———
3. *Facilities enclosed within building?*	3. Yes, but no roof over hall from rooms to pool	3 Yes	3. Yes
1. *Separate provision for sexes?*	1. Yes	1. Yes	1. Yes
2. *Basket, bag, or locker system used?*	2. Basket system	2. Basket system	2. Pigeon hole system
3. *Provision for: (dimensions)*	3. Men and boys—46′ x 43′	3. ———	3. Men 100, boys 150, women and girls 300;
Men and boys	Women and girls—46′ x 43′		Men's room 46′ x 12′
Women and girls			
Number of			
Dressing rooms	Dressing rooms, men 16, women 16		
Dressing booths		Booths, men 50, women 50	Dressing booths, women 30
Lockers			
Showers	Showers, 4 each	Showers, men 3, women 6	Showers, men 4, women 4
Suits			Suits, 200
Towels			Towels, 300
Baskets	Baskets, 400	Baskets, 500	
Toilets	Toilets, 3	Toilets, men 3, women 4	Toilets, 5 each
Urinals	Urinals, 3	Urinals, 1	
Lavatories	Lavatories, 4	Lavatories, 1 each	Lavatories, 4

SWIMMING POOLS (Continued)	GRAND RAPIDS, Michigan (Continued)	KEWANEE, Illinois (Continued)	LONDON, Ontario (Continued)
Other facilities provided	Attendants' room, 10' x 8' Guards' rooms (2), 10' x 8'	———	Office Guards' room Store room
1. *Pumps, filters, etc., located within building?*	1. Not any	1. Not any	1. Yes
2. *Bath house lights—location, voltage*	2. 110 volts	2. 110 lights throughout—1 in each dressing room	2. 8—150 watt along center of bath house
3. *Lights for pool area—location, type, voltage*	3. None	3. 12—250 watt lights around pool	3. 4 large floodlights, one at each corner of pool, 1,000 watts each
What life saving equipment present?	First aid kit	Pulmotor Ropes Two buoys on ropes, 50' apart	Buoys and ropes.
POOL CONSTRUCTION COST	Excavation and grading ...$ 964.25 Concrete work ..... 5,350.00 Plumbing and water supply 2,512.24 Fence ..... 450.00 Engineering service ..... 129.22 TOTAL $9,405.71	General contract .....$ 8,520.00 Drainage, grading, walks, etc. ..... 1,807.00 TOTAL $10,327.00	Excavation & grading.... $2,080.00 Concrete work ..... 7,200.00 Plumbing & water supply 650.00 Purification system ..... 3,225.00 Fence ..... 420.00 TOTAL.....$13,575.00
BATH HOUSE CONSTRUCTION COST	General construction .....$8,320.60 Grading and landscaping .. 573.69 TOTAL $8,894.29	Original contract .....$ 8,056.00 Later additions— Concrete floors and walk 707.00 Sanitation ..... 508.00 Hot water heater and tank ..... 534.00 TOTAL .....$9,805.00 (Does not include donated boiler—approximate value $1,500.00)	General construction.....$18,779.86 Plumbing (incl. showers) 1,100.00 Lighting ..... 125.00 TOTAL $20,004.86
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Life guards (2)—10 a.m to 1 p.m., 2:30 to 5:30, 6:30 to dark, $3.75 per day, teach swimming in mornings, general guard duty Matron—same hours, $2.50 per day, attends baskets and checking	Manager—$30 per week, general supervision Life guards (2)—9½ hours, 1 at $22.50 and 1 at $18 per week, guard duty Check room attendants (2 women, 1 acts as matron) Man, in charge of special activities such as tournaments, etc.	Cashier—10 a.m.—8 p.m., $80 per month Life guards (3)—10 a.m.—8 p.m., 1 at $100 per mo., 2 at $80 per mo. Attendant—8 a.m.—8 p.m., $60 per month
1. *Fees charged — admission, suits, towels, etc.*	1. Only charge is 5c for checking clothes	1. No charges	1. Admission 25c, suits and towels 10c
2. *Suits supplied all bathers?*	2. No	2. None supplied	2. No
3. *Suits and towels laundered at pool?*	3. No	3. No	3. Yes
1. *Time limit for bathers?*	1. No, guard regulates	1. No	1. No
2. *Hours open*	2. 10 to 1, 2:30 to 5:30, 6:30 to dark	2. 10 a. m.—9 p. m.	2. 10 a.m.—8 p.m.
3. *Days per week*	3. Six days per week	3. Seven days per week	3. Six days per week
4. *Length of season*	4. Eleven weeks	4. Three months	4. Three months
5. *Attendance*	5. Attendance for 1928— 1st week — 2,276 2nd " — 7,243 3rd " — 5,648 4th " — 7,034 5th " — 5,254 6th " — 5,926 7th " — 7,589 8th " — 6,787 9th " — 3,275 10th " — 3,174 TOTAL 54,206	5. 1923—33,600 1924—41,927 1925—56,500 1926—40,203 1927—37,200 1928—38,500	5. 1925—15,000 1926—18,000 1927—23,000 1928—25,000
1. *Source of construction funds*	1. City appropriation	1. Park funds and private donations	1. ———
2. *If receipts exceed expenses, how is balance used?*	2. ———	2. No receipts	2. For playground use
3. *If deficit, how met?*	3. From recreation budget	3. ———	3. By appropriation
4. *Provision for depreciation*	4. None	4. ———	4. None
FINANCIAL STATEMENT *Expenditures*	Payroll ..... $600.00 Light and power ..... 5.00 Supplies ..... 3.00 TOTAL $608.00	1927 Payroll .....$1,375.38 Insurance ..... 128.80 Equipment ..... 189.63 Supplies ..... 296.23 TOTAL.....$1,990.04 1926—TOTAL.....$2,039.64 1925—TOTAL.....$2,523.34 1924—TOTAL.....$2,203.62	Payroll .....$1,100.00 Laundry ..... 80.00 Equipment ..... 150.00 Supplies ..... 100.00 TOTAL $1,430.00
Receipts	Checking ..... $ 92.00 TOTAL .....$ 92.00	No receipts	Admission .....$1,200.00 Fees from suits and towels 150.00 Concession ..... 250.00 TOTAL $1,600.00

SWIMMING POOLS	OLEAN, New York	PEORIA, Illinois	PHILADELPHIA, Pennsylvania
DESCRIPTION			
1. *Name of pool*	1. Municipal Pool	1. Glen Oak Pool	1. Greenwich Pool
2. *Year built*	2. 1927	2. 1921	2. 1926
3. *Location*	3. In park, ¼ mile from center of city	3. Glen Oak Park	3. Adjacent to playground
1. *Shape*	1. Rectangular	1. Rectangular	1. Rectangular
2. *Dimensions—*	2. (a) 150′ x 50′	2. (a) 150′ x 50′	2. (a) 90′ x 35′
(a) *size*	(b) 2½′—7′	(b) 2½′—9½′	(b) 3′—9′
(b) *depth*			
3. *Thickness of wall*	3. 10″ at top, 14″ at bottom	3. 8″ concrete, 4″ glazed brick veneer	3. 12″
4. *Thickness of bottom*	4. 6″	4. 6″	4. 12″
5. *Capacity*	5. 150,000 gallons	5. 315,000 gallons	5. ———
CONSTRUCTION			
1. *Material used in construction*	1. Concrete and tile	1. Concrete, tile, brick	1. Concrete, reenforced
2. *How are deep and shallow sections separated?*	2. No separation	2. 1½″ w. i. pipe railing, removable	2. No separation, changes in depth marked on walls
3. *Scum gutter completely surrounding pool?*	3. Yes	3. Yes	3. No; on two sides and deep end
1. *Hand rail? Describe*	1. No; scum gutter used	1. No	1. No
2. *Ladders or steps—number, location*	2. Four, two in deep end and two midway	2. Six ladders, two steps	2. Four galv. iron pipe ladders, one in each corner
3. *Are they recessed?*	3. Yes	3. No	3. No
1. *Runway—material, width*	1. Tile, 10′ wide	1. Paving brick	1. Concrete, 6′ on one side, 6′ 4″ on the other, 9′ 2″ at ends
2. *Slope to scum gutter or to drains?*	2. To drains	2. To drains	2. To drains
3. *Curb at edge of pool? Describe*	3. Yes; tile covered, 8″ above runway	3. No	3. No
1. *Diving towers—location, description*	1. 15′ tower at deep end; two boards at 5′ height, one at 15′ height	1. At center of deep end, 10′ and 20′ platforms (10′ x 8′), w. i. pipe frame	1. No diving tower
2. *Spring boards and floats—location, description*	2. Two spring boards, one on each side of tower	2. Two spring boards near corners of deep end	2. One spring board at center of deep end.
1. *Source of water supply*	1. City	1. Wells	1. City
2. *Kind of pipe*	2. 3″ pipe	2. ———	2. 4″ galv. iron
3. *Inlets and outlets—number, location, size*	3. One fountain at shallow end; one 8″ outlet in deepest section	3. 1—8″ inlet at shallow end; 1—12″ outlet at center of deep end	3. 3—3″ inlets; 2—8″ cast iron pipes connecting with 12″ sewer
4. *Water heated for pool and showers? Kind of heater*	4. Yes; gas heater	4. For showers only	4. No
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Recirculation	1. Fill and draw	1. Fill and draw; sufficient flow to replace water overflowing into scum gutter
2. *Filters—number, kind, size*	2. One, built by Vacuum Oil Co., 28′ x 27′	2. None	2. None
3. *Pumps—name, number, type*	3. One	3. None	3. None
1. *Disinfectants used*	1. Chlorination, continuous	1. Five lbs. chloride of lime distributed over surface when pool is filled; 3 lbs. nightly; also copper sulphate to destroy algae	1. At noon and evening 3 lbs. chloride of lime in burlap bag drawn thru water
2. *Type and make of equipment*	2. Wallace and Tiernan	2. ———	2. ———
1. *Time required to fill pool*	1. Eight hours	1. Thirteen hours	1. Three and one-half hours
2. *Time required to empty pool*	2. Four hours	2. Two hours	2. Three hours
3. *How often is water changed?*	3. Every ten days	3. Twice weekly	3. Daily
4. *How often is water tested?*	4. Weekly	4. Not tested	4. Average twice monthly
5. *By whom?*	5. City chemist	5. ———	5. Health Department
1. *Pool area enclosed? Type, dimensions of enclosure*	1. Yes; raised above ground and surrounded by railing and 3′ wire fence	1. Yes; bath house, side dressing rooms, and end checking booths enclose pool area (176′ x 112′)	1. Yes; brick wall on one side and end, bath house other side and end (123′7″ x 93′7″)
2. *Describe area surrounding pool*	2. Park and playground	2. Level, ample parking space in front of bath house.	2. Beyond wall at edge of runway is playground and playfield on one end and one side; street on other side and end
3. *Facilities for spectators?*	3. Nearby incline furnishes room for hundreds	3. Ten benches placed against enclosure. Portable bleachers for special events	3. None
BATH HOUSE			
1. *Outside dimensions*	1. Women's section—150′ x 10′ Men's section—150′ x 10′	1. 116′ x 54′3″ (main building)	1. ———
2. *Construction materials*	2. Concrete	2. Main building—brick Wings—creosoted frame	2. Brick for waiting room and showers; dressing rooms frame
3. *Facilities enclosed within building?*	3. Yes	3. Yes	3. No; showers at entrance to pool, dressing booths in frame sheds on side, waiting room and office in brick building on end
1. *Separate provision for sexes?*	1. Yes	1. Yes	1. No; accommodated on different days
2. *Basket, bag, or locker system used?*	2. Bag system	2. Basket system	2. Locker system
3. *Provision for: (dimensions)*	3.	3.	3. ———
Men and boys	Men and boys—250	Men and boys—260′ x 15′ 3″	
Women and girls	Women and girls—250	Women and girls—260′ x 15′ 3″	
Number of			
Dressing rooms	Dressing rooms, 2		
Dressing booths	Booths, 58	Dressing booths, men 114, women 114	Dressing booths (4′ sq.), 123 (combined booth and locker)
Lockers			Sprays, 6
Showers	Showers, 16	Showers, 5 each	
Suits	Suits, 250	Suits, 175 each	
Towels	Towels, 500	Towels, 2,500	
Baskets		Baskets, men, 366, women 300	
Toilets	Toilets, 5	Toilets, men 2, women 4	Toilets, 2
Urinals	Urinals, 3	Urinals, 6	Urinals, 1
Lavatories	Lavatories, 2	Lavatories, 1 each	Lavatories, 1

SWIMMING POOLS (Continued)	OLEAN, New York (Continued)	PEORIA, Illinois (Continued)	PHILADELPHIA, Pennsylvania (Continued)
Other facilities provided	Attendants' room	Office Two rest rooms Two check rooms Boiler room Six lockers for life guards	Office and attendants' room Waiting room
1. *Pumps, filters, etc., located within building?*	1. Yes	1. Not any	1. No
2. *Bath house lights—location, voltage*	2. 60 watt lights, 10' apart	2. ———	2. 1—50 watt each unit of 4 dressing rooms, 50 watt lamps in aisles between booths
3. *Lights for pool area—location, type, voltage*	3. 500 watt flood light in each corner	3. 8—300 watt ornamental lights on concrete base, 4 on each side of pool	3. 2—1,000 watt lamps suspended over pool by cross wire supports, midway between center and ends of pool
What life saving equipment present?	4 life buoys	Ropes Life buoys First aid supplies	Buoys
POOL CONSTRUCTION COST	*Pool and Bath House* Concrete work .....$22,509.77 Piling ..... 1,325.00 Plumbing and heating.... 6,555.71 Wiring ..... 689.08 Filtration plant ..... 6,030.40 Plastering ..... 283.74 Tile and setting..... 10,493.89 Finishing, equipment, etc. 7,365.58 General expense, inspection, interest, etc..... 1,409.92 Engineering ..... 2,000.00 TOTAL .....$58,663.09 (Built by Olean Chamber of Commerce; numerous donations from local firms)	*Cost of Pool and Bath House* Excavation, grading, concrete work .....$61,877.62 Plumbing and water supply (includes $10,000 for drilling wells)..... 15,430.67 Lighting ..... 1,471.50 Engineering and architect service ..... 3,026.11 Miscellaneous equipment.. 3,983.61 TOTAL $85,789.51	Excavation and grading..$ 750.00 Concrete work ..... 5,975.00 Plumbing ..... 2,800.00 Lighting ..... 1,455.00 Miscellaneous ..... 60.00 TOTAL .....$11,040.00 (City departments provided engineering service)
BATH HOUSE CONSTRUCTION COST	(See pool construction cost statement)	Included in construction cost statement for pool	General construction.....$26,466.50 TOTAL .....$26,466.50 (Plumbing and lighting costs included in pool construction statement)
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Manager—playground supervisor Cashiers (2)—12 hrs., 50c per hr., sell tickets Life guards (2)—6 hrs., $7 per day, guard and teach swimming Attendants (2)—12 hrs., 40c per hr., check clothing Matrons (2)—8 hrs., 35c per hr., check clothing	Cashier—9 a.m.—noon, 2—9 p.m., $4.30 per day Life guards (3)—same hrs., 1 at $4.30 per day, 2 at $3.25 Shower boys (2), checkers (2), towel girl, ticket takers (2)—same hrs., $3.00 per day Fireman—same hrs., $4 per day Janitor—6 a.m.—6 p.m., $3.00 per day Night watchman—6 p.m.—6 a.m., $3.25 per night (Arrangement of facilities requires large staff)	Men life guards (2)—one 9—4 p.m. one 1—9 p.m., $28 per week, one acts as manager Woman life guard—3 days per week, 9 a.m.—4 p.m., $28 per week Attendant—9 a.m.—9 p.m., $25 per wk., general caretaker Matron—9 a.m.—9 p.m., $15 per wk., general supervision of women Cleaner—9 p.m.—3 a.m., $25 per week, empties, cleans and fills pool
1. *Fees charged — admission, suits, towels, etc.*	1. Admission—adults 25c; children, 5c a.m., 10c afternoon, 25c evening Suits—cotton 10c, woolen 20c Towels—5c	1. Admission and towel 10c., suit, adults 15c; chiildren 10c (3 free mornings weekly for children 15 yrs. and under)	1. No charges
2. *Suits supplied all bathers?*	2. If desired	2. No	2. No
3. *Suits and towels laundered at pool?*	3. No	3. No	3. No
1. *Time limit for bathers?*	1. No	1. No	1. Yes; group changed hourly
2. *Hours open*	2. Six days, 10 a.m.—10 p.m.; Sundays, 1 p.m.—5 p.m.	2. 9 a.m.—12, 2—9 p.m.	2. 9 a.m.—9 p.m.
3. *Days per week*	3. Seven days per week	3. Seven days per week	3. Six days per week
4. *Length of season*	4. Three months	4. June 24th—Sept. 8th	4. June 15th—Sept. 15th
5. *Attendance*	5. 1928 June ..... 4,551 July .....11,376 Aug. .....10,455 Sept. ..... 591 TOTAL 26,973	5. 1926 1927 1928 June 9,639 15,004 3,216 July 27,316 26,240 29,158 Aug. 19,463 11,829 14,287 Sept. 1,547 2,499 481 TOTAL 57,965 55,572 47,142	5. 1927 1928 Women .....10,536 11,682 Girls .....25,417 31,474 Men .....20,391 23,233 Boys .....31,481 43,054 TOTAL 87,825 109,443
1. *Source of construction funds*	1. By subscription and donations of labor	1. From regular budget for park maintenance and outlay	1. Appropriation from city funds thru Bureau of Recreation
2. *If receipts exceed expenses, how is balance used?*	2. For recreation purposes	2. Always less	2. ———
3. *If deficit, how met?*	3. By Board of Education	3. Budget	3. ———
4. *Provision for depreciation*	4. None	4. None	4. Provided for in general city budget
FINANCIAL STATEMENT *Expenditures*	1928 Payroll .....$3,408.90 Light and power ..... 102.84 Fuel ..... 388.45 Water ..... 93.10 Purification ..... 23.00 Supplies ..... 540.00 Laundry of suits and towels 138.30 Miscellaneous ..... 50.00 TOTAL $4,744.59	1927 Payroll .....$3,975.75 Light and power..... 31.80 Fuel ..... 312.22 Water ..... 111.85 Laundry ..... 1,565.62 Equipment ..... 23.30 Supplies ..... 121.48 Miscellaneous ..... 201.96 Repairs and upkeep..... 207.79 TOTAL .....$6,551.77 1926—TOTAL .....$7,477.73 1925—TOTAL $7,515 91	Payroll .....$1,887.00 Light and power..... 19.50 Purification ..... 6.00 Equipment ..... 10.00 TOTAL $1,922.50
Receipts	1928 Admission .....$3,894.25 Fees from suits..... 322.80 Fees from towels..... 176.35 Sale of caps, hairdriers, comb machine ..... 98.50 TOTAL $4,491.90	Admission and other fees— 1927—TOTAL .....$5,466.15 1926—TOTAL .....$5,737.40 1925—TOTAL $6,315.40	No receipts

SWIMMING POOLS	ROCKFORD, Illinois	SALEM, Massachusetts	SAN FRANCISCO, California
DESCRIPTION			
1. *Name of pool*	1. Fairgrounds Park Pool	1. Forest River Pool	1. Mission Pool
2. *Year built*	2. ———	2. Started several years ago; improvements added periodically	2. Pool 1914, bath house 1915
3. *Location*	3. Fairgrounds Park	3. Forest River Park; near the shore	3. In playground
1. *Shape*	1. Rectangular	1. Irregular, curved at one end	1. Rectangular
2. *Dimensions—* (a) *size* (b) *depth*	2. (a) 150′ x 50′ (b) 2′—8′6″	2. (a) 340′ long, 80′ at one end, 100′ at other end (b) 0—9′	2. (a) 90′ x 30′ (b) 3′—9′
3. *Thickness of wall*	3. 12″	3. 12″	3. 12″ at bottom, 8″ at top
4. *Thickness of bottom*	4. 10″	4. 6″	4. 12″
5. *Capacity*	5. 390,000 gallons	5. 907,000 gallons	5. 100,000 gallons
CONSTRUCTION			
1. *Material used in construction*	1. Concrete	1. Concrete	1. Concrete, reenforced and ¾″ lining of waterproofed plaster, ½ lb. waterproofing to sq. ft.
2. *How are deep and shallow sections separated?*	2. By rail and four cement steps	2. No separation	2. Rope, and 4″ black line painted on bottom
3. *Scum gutter completely surrounding pool?*	3. Yes	3. No	3. Yes
1. *Hand rail? Describe*	1. No	1. No	1. No
2. *Ladders or steps—number, location*	2. Steps in corners of shallow end; ladder in corners of deep end	2. Ladder for each diving board at deep side	2. None (impossible to recess in old construction)
3. *Are they recessed?*	3. Ladders, but not steps	3. No	3. ———
1. *Runway—material, width*	1. Concrete, ends 15′ and 25′, sides 10′ and 20′		1. Concrete, 6′ wide
2. *Slope to scum gutter or to drains?*	2. To drains		2. To scum gutter and drains (3%)
3. *Curb at edge of pool? Describe*	3. Yes; concrete, 12″ wide, 10″ high		3. Yes; concrete and tile surface, 1′ 3″ x 3″, completely surrounds pool
1. *Diving towers—location, description*	1. One in center of deep end	1. No diving tower	1. None
2. *Spring boards and floats—location, description*	2. Two spring boards at deep end	2. Three diving boards on deep side approx. 20′ apart	2. Brandstein International 14′ spring board, mounted on regulation low board standards
1. *Source of water supply*	1. City	1. From the bay	1. City
2. *Kind of pipe*	2. Galv. iron	2. No pipe	2. Galv. iron
3. *Inlets and outlets—number, location, size*	3. 1—6″ inlet at shallow end; 2—6″ drains equidistant from sides and ends at maximum depth	3. Water gate at end of pool is opened at low tide to empty and at high tide pool is filled	3. 2—2½″ inlets from 2½″ main; 1—6″ outlet at deep end in center of end wall at bottom
4. *Water heated for pool and showers? Kind of heater*	4. For showers only	4. No	4. For showers only
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Fill and draw; (recirculation method to be installed)	1. Fill and draw	1. Recirculation; continuous flow
2. *Filters—number, kind, size*	2. ———	2. ———	2. Three International Pressure filters, 66″ diameter
3. *Pumps—name, number, type*	3. ———	3. ———	3. American, centrifugal, one
1. *Disinfectants used*	1. Chlorination, intermittent	1. None	1. Chlorination, continuous; soda ash—copper sulphate dosage as required to destroy algae and maintain water purity
2. *Type and make of equipment*	2. ———	2. ———	2. Wallace and Tiernan chlorinator
1. *Time required to fill pool*	1. Eight hours	1. One hour	1. Eight hours
2. *Time required to empty pool*	2. Eight hours	2. One hour	2. Eight hours
3. *How often is water changed?*	3. Weekly	3. Daily	3. Depends on condition of floor and walls of pool, i.e., success of vacuum cleaning
4. *How often is water tested?*	4. Weekly	4. ———	4. Weekly
5. *By whom?*	5. City Health Department	5. ———	5. Board of Health
1. *Pool area enclosed? Type, dimensions of enclosure*	1. Yes; wire mesh Cyclone fence, 8′ high, steel posts	1. No	1. Yes; main building on shallow end, wall at deep end, 2 locker room wings on sides
2. *Describe area surrounding pool*	2. Bowling green, park area	2. Turf, trees, shrubs	2. Lawn, paved area, street, hard surface play area in rear
3. *Facilities for spectators?*	3. None	3. Bleachers for special occasions	3. None
BATH HOUSE			
1. *Outside dimensions*	1. 92′ x 60′	1. 72′ x 71′ 6″	1. 125′ x 70′
2. *Construction materials*	2. Wood and stucco	2. Concrete blocks, outside stucco finish	2. Wood and concrete
3. *Facilities enclosed within building?*	3. Yes	3. ———	3. Yes
1. *Separate provision for sexes?*	1. No; accommodated at different times	1. Yes	1. Yes; boys one day, girls the next
2. *Basket, bag, or locker system used?*	2. Locker system	2. Locker system	2. Locker system
3. *Provision for: (dimensions)* *Men and boys* *Women and girls*	3. ———	3. Men, 20′ x 20′ Boys, 18′ x 15′ Free room—9′ x 9′ Women, 20′ x 20′ and 18′ x 12′, Girls′ free room—9′ x 9′	3. Provision for 300—men's dr. rm. 65′ 8″ x 10′ 8″, women's dr. rm. 48′ x 12′
Number of			
Dressing rooms			
Dressing booths	Dressing booths, 74	Dressing booths, men 6, women 17	Dressing booths, 44
Lockers	Lockers, 190	Lockers, men 350, women 160	Lockers, 44
Showers	Showers, 2	Showers, men 2, women 2, 1 outside for boys and 1 for girls	Showers, 18
Suits			Suits, men 700, women 700
Towels			Towels, 800
Baskets			
Toilets	Toilets, 5	Toilets, men 2, women 2	Toilets, 6
Urinals	Urinals, 6	Urinals, 1	
Lavatories		Lavatories, men 1, women 2	

SWIMMING POOLS (Continued)	ROCKFORD, Illinois (Continued)	SALEM, Massachusetts (Continued)	SAN FRANCISCO, California (Continued)
Other facilities provided	Attendants' room in corner of locker room Drinking fountain on runway between showers and pool	Office, 9' 6" x 9', with counter for checking 2 Shelter rooms with small store rooms, refectory and toilets	Office and dressing room for men directors and one for women directors Suit issue room
1. *Pumps, filters, etc., located within building?*	1. Not yet installed	1. None	1. Yes
2. *Bath house lights—location, voltage*	2. No lights	2. 3 in men's and ladies' rooms 1 in boys' and girls' rooms 1 in boys' and girls' free rooms	2. Overhead lights, 220 volt
3. *Lights for pool area—location, type, voltage*	3. No lights	3. None	3. Provision for lights, but not yet used
What life saving equipment present?	Complete inhalator and life saving equipment	Life preservers Ropes	Ropes and bamboo poles Life buoys
POOL CONSTRUCTION COST	*Cost of Pool and Bath House* Excavation ..... $ 1,402.50 General construction..... 21,744.88 Plumbing ..... 4,041.44 Lighting ..... 760.00 Water service ..... 805.44 Locker installation..... 1,034.88 Fence ..... 834.81 TOTAL $30.623 95	Concrete work .....$5,,80.00 Wall ..... 1,760.00 Diving boards ..... 20.22 TOTAL $7,560.22	General construction.....$ 8,928.00 Purification system ..... 3,264.00 TOTAL .....$12,192.00 (Work done under contract; individual cost items not available.)
BATH HOUSE CONSTRUCTION COST	Included in pool construction statement	Grading and drive.....$ 418.00 General construction Material .....$6,172 Labor ..... 3,663 9,835.00 Tile roof ..... 260.00 Plumbing (incl. showers) 2,956.74 Roofing ..... 690.00 Lighting ..... 216.52 Plaster, lathing, stucco... 2,394.00 Architect ..... 955.56 Iron gate and grilles..... 437.20 Lockers ..... 1,244.37 Painting ..... 380.00 Approach to pool..... 232.81 TOTAL $20,020.20	General construction.....$ 9,3..4.00 Suits ..... 890.00 Towels ..... 350.00 TOTAL .....$10,564.00 (Work done under contract; individual cost items not available.)
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Life guards (4) 9—11:30 a.m., 1:30—5:30 p.m., 6:30—8 p.m., $100—$125 per month, guard duty and general care of pool	Cashier—8 hrs., $18 per wk., charge of desk, supervises bldg. Life guard—full time, $60 per mo. Life guard (person on playground)—$5 for Sun. afternoon and evening, $2 for other nights Attendant—8 hrs., $5 per day, supervises pool and pool area, empties, fills and cleans pool	Manager—5 hrs., $150 per mo., instruction, and general supervision of bath house and activities Life guards (2)—1, 8 hrs., $125 per mo.; 1, 4 hrs., $62.50 per mo., guarding and instruction Matron—8 hrs., $100 per mo., issues suits, checks valuables, acts as cashier
1. *Fees charged—admission, suits, towels, etc.*	1. No charges	1. Locker 10c	1. Inaugurating 5c fee for children and 15c for adults in 1929
2. *Suits supplied all bathers?*	2. No	2. No	2. Yes
3. *Suits and towels laundered at pool?*	3. No	3. No	3. No
1. *Time limit for bathers?*	1. Yes	1. No	1. No
2. *Hours open*	2. 10—11:30 a.m., 2—5:30 p.m., 6:30—8:30 p.m.	2. Morning, afternoon and evening	2. 10 a.m.—12, 1—5 p.m.
3. *Days per week*	3. Seven days per week	3. Seven days per week	3. Seven days per week
4. *Length of season*	4. Ten weeks	4. June 17th—Sept. 15th	4. Eight months
5. *Attendance*	5. 1926 1927 1928 June 4,458 8,563 July 21,776 24,862 Aug. 11,959 13,087 TOTAL 37,000 38,193 46,512	5. *Bathers* *Spectators* *Used Lockers* 1925.... 16,415 16,920 2,490 1926.... 15,455 16,385 2,050 1927.... 13,215 14,550 1,298 1928.... 53,655 64,950 .... (New bath house opened July, 1927)	5. Average 5,000 per month
1. *Source of construction funds*	1. Taxation	1. City appropriation	1. Playground budget (tax funds)
2. *If receipts exceed expenses, how is balance used?*	2. ———	2. Never does	2. ———
3. *If deficit, how met?*	3. ———	3. From appropriation included in playground funds	3. ———
4. *Provision for depreciation*	4. ———	4. None	4. Met thru Playground Commission's funds (tax levy)
FINANCIAL STATEMENT *Expenditures*	Payroll .....$ 900.00 Light and power..... 50.00 Miscellaneous ..... 110.00 TOTAL $1,060.00	1927 Payroll ..... $436.90 Supplies ..... 74.99 TOTAL .....$511.89 1926—TOTAL .....$565.60 1925—TOTAL $567.61	Payroll .....$3,550.00 Light and power..... 25.00 Fuel ..... 40.00 Water ..... 70.00 Purification ..... 153.00 Laundry ..... 900.00 Equipment ..... 350.00 Supplies ..... 85.00 TOTAL $5,173.00
Receipts	No receipts	1928 Fees from lockers ..... $447.57 TOTAL ..... $447.57 1927—TOTAL ..... $129.80 1926—TOTAL .....$205.05 1925—TOTAL $249.05	No receipts

SWIMMING POOLS	SPOKANE, Washington	TAUNTON, Massachusetts	TERRE HAUTE, Indiana
DESCRIPTION			
1. *Name of pool*	1. Hillyard Pool	1. Lovering Pool	1. ———
2. *Year built*	2. 1925	2. 1927	2. 1923
3. *Location*	3. In Hillyard (suburb)	3. Adjacent to small playground	3. In a park
1. *Shape*	1. Rectangular	1. Rectangular	1. Oval
2. *Dimensions—* (a) *size* (b) *depth*	2. (a) 150′ x 60′ (b) 3′—8′	2. (a) 175′ x 60′ (b) 1′—3′ 6″ (shallow section, 100′ long) 3½′—9½′—7½′ (swimming section, 75′ long)	2. (a) 193′ x 128′ (b) 3′—9′
3. *Thickness of wall*	3. 12″	3. 10″	3. 7″
4. *Thickness of bottom*	4. 5″	4. 6″	4. 10″
5. *Capacity*	5. 250,000 gallons	5. 350,000 gallons	5. 600,000 gallons
CONSTRUCTION			
1. *Material used in construction*	1. Concrete, reenforced	1. Concrete, reenforced (35 lb. mesh)	1. Concrete, reenforced
2. *How are deep and shallow sections separated?*	2. Rope at 4′ depth	2. Concrete wall, 12″ wide	2. Floats joined by a rope
3. *Scum gutter completely surrounding pool?*	3. Yes; except at ladders	3. No	3. Yes
1. *Hand rail? Describe*	1. Outer lip of scum gutter	1. 1″ rope around swimming section	1. Yes; 1½″ rail completely around pool, just below scum gutter
2. *Ladders or steps—number, location*	2. Three on each side of pool, equidistant apart	2. Two brass ladders at deep end	2. Eleven, equidistant apart around pool
3. *Are they recessed?*	3. Yes	3. No	3. ———
1. *Runway—material, width*	1. Cement, 10′ wide	1. Concrete, 4′ wide	1. Cement, 12′ wide
2. *Slope to scum gutter or to drains?*	2. To drains	2. Slopes away from pool to sandy beach	2. To scum gutter
3. *Curb at edge of pool? Describe*	3. No	3. Yes; 6″; pool wall extends upward to form curb	3. Yes; high on outside with 6″ slope to scum gutter
1. *Diving towers—location, description*	1. 4′ diving tower of 4″ x 6″ timbers, on side of pool at maximum depth, (made and donated by swimmers)	1. No diving tower	1. Tower constructed of wood, supported on steel frame, at deep end
2. *Spring boards and floats—location, description*	2. Spring board opposite tower	2. Spring board on each side of life guard stand at deep end	2. Spring board on either side of diving tower
1. *Source of water supply*	1. Great Northern Ice Company, from a well	1. City	1. Deep well
2. *Kind of pipe*	2. Iron pipe	2. Iron pipe	2. Galvanized
3. *Inlets and outlets—number, location, size*	3. 1—6″ inlet pipe near middle of one side; 8″ drain in center at maximum depth	3. 1—4″ inlet and 1—1″ continuous flow pipe, both at shallow end; 1—12″ outlet at maximum depth, 10′ from end and equidistant from sides, 1—1″ overflow at deep end	3. 6″ inlet at shallow end, also inlet through circulation pipes at shallow end; 12″ outlet in pool bottom at maximum depth
4. *Water heated for pool and showers? Kind of heater*	4. Yes, to 70 degrees, for pool only	4. No	4. For showers only
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Fill and draw; continuous flow (ice plant has daily flow of 300,000 gal. of 70 degree water which flows through pool)	1. Fill and draw; continuous flow, (1″ flow)	1. Recirculation
2. *Filters—number, kind, size*	2. None	2. None	2. One, Roberts, 20′ x 8′
3. *Pumps—name, number, type*	3. None	3. None	3. Type K. O. 948, Model 69 A 117
1. *Disinfectants used*	1. Chlorination, intermittent 1 lb. to 100,000 gal. daily	1. Chlorination — bag of chlorine drawn through water, 3 lbs. for shallow section, 4 lbs. for deep section, applied as needed	1. Happyland Swimming Pool Construction Company system
2. *Type and make of equipment*	2. ———	2. ———	2. ———
1. *Time required to fill pool*	1. Nineteen hours	1. Seven hours	1. Fourteen hours (approx.)
2. *Time required to empty pool*	2. Seven hours	2. Six hours	2. Two hours
3. *How often is water changed?*	3. Average twice weekly	3. Weekly	3. At opening of season only
4. *How often is water tested?*	4. Bi-weekly	4. Daily	4. Three times per week
5. *By whom?*	5. City Health Department	5. ———	5. City
1. *Pool area enclosed? Type, dimensions of enclosure*	1. Yes; 5′ Page chain fence	1. Yes, chain link fence 6′ high, No. 9 gauge, 2½″ mesh, 210′ x 250′ x 107′ x 285′	1. Functions of usual enclosure provided by Bintz type of structure
2. *Describe area surrounding pool*	2. Concrete walk, 10′ on 3 sides, 15′ on b. h. side; outside of fence, trees, shrubs, lawn	2. Sandy, giving beach effect	2. Park land
3. *Facilities for spectators?*	3. Portable bleachers for special occasions	3. Benches on one side	3. Beach (reached by two sets of stairs, right and left of entrance) surrounded by park benches
BATH HOUSE			
1. *Outside dimensions*	1. 84′ x 45′	No bath house; shelter house on adjoining playground contains showers and two small dressing rooms; used chiefly by children who wear suits to pool	1. 233′ x 164′—outside dimensions of entire structure (Bintz type)
2. *Construction materials*	2. Concrete, reenforced		2. Concrete, reenforced
3. *Facilities enclosed within building?*	3. Yes		3. Yes; underneath beach
1. *Separate provision for sexes?*	1. Yes		1. Yes
2. *Basket, bag, or locker system used?*	2. Lockers for men, women & girls; baskets for boys		2. Locker
3. *Provision for: (dimensions)* *Men and boys* *Women and girls*	3. Men, 26′ 9″ x 22′ 6″ Women, 45′ x 28′ Boys, 45′ x 33′ 6″ (one room)		3. Men and boys—178′ x 22′ Women and girls—89′ x 11′
Number of			
Dressing rooms			Dressing rooms, 63
Dressing booths	Dressing booths, men 17, women 24		Dressing booths, 63
Lockers	Lockers, 144		Lockers, men and boys 1,294, women and girls 502
Showers	Showers, 7		Showers, 42
Suits			
Towels			Towels, 3,450
Baskets	Baskets, 500		
Toilets	Toilets, 4		Toilets, 20
Urinals	Urinals, 1		Urinals, 6
Lavatories	Lavatories, 4		Lavatories, 17
Other facilities provided	Combined office and attendants' room		Men's first aid room Women's first aid room Office Lobby Cashier's room Lost and Found Department General information booth

SWIMMING POOLS (Continued)	SPOKANE, Washington (Continued)	TAUNTON, Massachusetts (Continued)	TERRE HAUTE, Indiana (Continued)
1. *Pumps, filters, etc., located within building?* 2. *Bath house lights—location, voltage* 3. *Lights for pool area—location, type, voltage*	1. None 2. 40 watt lights in dressing rooms 3. 4—200 watt lamps (with special hood reflectors) on sides of pool		1. Yes 2. Extended from ceiling 3. Overhead flood lights now being changed to beach lights to avoid overhead wiring
What life saving equipment present?	None; adequate guard protection	Two life buoys	Cots and first aid equipment
POOL CONSTRUCTION COST	General construction .....$7,000.00 Fence ..... 650.00 Lighting (pool & b.h.).... 350.00 TOTAL .....$8,000.00 (Built by contract; items not available)	Excavation and grading..$ 800.00 Concrete work Material .....$4,100 Labor ..... 4,000 8,100.00 Plumbing and water supply Material .....$150 Labor ..... 100 250.00 Fence ..... 1,500.00 Miscellaneous equipment.. 375.00 TOTAL.....$11,025.00 (Portion of labor donated)	Pool and Bath House— TOTAL .....$76,192.42 (Individual cost items not available)
BATH HOUSE CONSTRUCTION COST	General construction Material .....$2,000 Labor ..... 2,000 $4,000.00 Plumbing (incl. showers).. 600.00 TOTAL .....$4,600.00 (Lighting cost included in pool construction statement)	A house purchased for $500 is being moved to pool for use as shelter house and rest room. Moving house will cost $75.00	See pool construction cost statement
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Manager—8 hrs., $5 per day, in complete charge, also guard duty Life guards (2)—8 hrs., $4.50 per day, guard duty Locker girls (2) and boys (4)—6 hrs., 25c per hr., general locker room work	Life guards (4, high school boys)—8 hrs., $18 per wk., life guard duty, supervise and clean pool	Manager—125 per mo., general supervision Cashier—$70 per mo., sells tickets Life guards (3)—1 at $100 and 2 at $85 per mo. Attendants (2)—$70 per mo., inspect swimmers before entering pool Counter men (2)—$60 per mo., issue and receive towels and locker keys Matron—$70 per mo., cares for women's section Officer—$90 per mo., keeps order Engineer—$125 per mo., in charge of engine room Night watchman—$90 per mo., janitor service (Ten hour day for all workers)
1. *Fees charged — admission, suits, towels, etc.* 2. *Suits supplied all bathers?* 3. *Suits and towels laundered at pool?*	1. No charges 2. None supplied 3. No	1. No charges 2. ——— 3. ———	1. Admission—adults 25c; children 15c before 6 p.m., then 25c 2. None supplied 3. No
1. *Time limit for bathers?* 2. *Hours open* 3. *Days per week* 4. *Length of season* 5. *Attendance*	1. Only curfew rule (for children) 2. 6 a. m.—10 p. m. 3. Seven days per week 4. Ten weeks 5. 1926 *Swimmers* *Visitors* June ..... 8,070 14,510 July ..... 16,440 16,130 August .... 10,870 9,914 TOTAL.. 35,380 40,554 1927 June ..... 23,735 18,839 July ..... 53,480 34,495 August .... 21,441 20,067 TOTAL.. 98,656 73,401 1928 June ..... 12,900 6,800 July ..... 54,970 39,568 August .... 10,375 8,034 TOTAL.. 78.245 54,402	1. Yes; when crowded, 50 allowed in deep section, 30 minute periods 2. 10 a. m.—8 p. m. 3. Seven days per week 4. Ten—twelve weeks 5. No attendance records, first season pool open	1. No time limit 2. 12:30—10 p.m. 3. Seven days per week 4. June 15th—Sept. 15th 5. 1926 1927 1928 June 2,207 2,003 2,984 July 13,912 12,291 21,019 Aug. 10,401 9,412 12,419 Sept. 719 516 1,353 TOTAL 27,239 24,222 37,775
1. *Source of construction funds* 2. *If receipts exceed expenses, how is balance used?* 3. *If deficit, how met?* 4. *Provision for depreciation*	1. Tax levy 2. ——— 3. Operating cost comes from tax levy 4. None	1. Appropriation from playground fund 2. ——— 3. ——— 4. ———	1. ——— 2. Goes to general Park fund 3. By general Park fund 4. None
FINANCIAL STATEMENT *Expenditures*	Payroll .....$2,392.75 Light and power..... 55.83 Water (other than for pool) 55.56 Equipment ..... 221.89 Supplies ..... 493.07 TOTAL.....$3,219.10	Statement not yet available	1928 Payroll .....$3,367.00 Light and power ..... 1,612.72 Fuel ..... 320.90 Water ..... 60.41 Purification ..... 307.12 Laundry of towels ..... 913.92 Replacing equipment ..... 31.04 Supplies ..... 206.93 Miscellaneous ..... 287.41 TOTAL $7,107.45
Receipts	No receipts	Statement not yet available	1928 Admission .....$7,720.25 Fees for towels and keys not returned ..... 94.50 Normal School class and parties ..... 397.25 TOTAL $8,212.00

SWIMMING POOLS	TROY, New York	TULSA, Oklahoma	WATERBURY, Connecticut
DESCRIPTION			
1. *Name of pool*	1. Prospect Park Pool	1. Newblock Pool	1. Chase Park Pool
2. *Year built*	2. 1926	2. 1927	2. 1921
3. *Location*	3. Prospect Park	3. ———	3. Chase Park
1. *Shape*	1. Oval	1. Rectangular	1. Rectangular
2. *Dimensions—*	2. (a) 120′ x 85′	2. (a) 182′ 6″ x 101′ (large pool)	2. (a) 120′ x 50′
(a) size	(b) 3′—9′	182′ 6″ x 57′ (small pool)	(b) 3′ – 8′ – 6′
(b) depth		(b) Large pool 3′—11′	
		Small pool 1½′—4′	
3. *Thickness of wall*	3. ———	3. 12″	3. 18″
4. *Thickness of bottom*	4. ———	4. 8″	4. 6″
5. *Capacity*	5. 250,000 gallons	5. 1,000,000 gallons	5. 300,000 gallons
CONSTRUCTION			
1. *Material used in construction*	1. Concrete, reenforced; ornamental stone facing on end walls	1. Concrete, reenforced	1. Concrete
2. *How are deep and shallow sections separated?*	2. Life line at 3′ depth	2. Pools separated by sand beach; deep and shallow areas by cork life lines	2. No separation
3. *Scum gutter completely surrounding pool?*	3. Yes	3. Yes	3. None
1. *Hand rail? Describe*	1. Yes; 2″ galv. pipe, on sides only	1. No	1. No; rope through rings set in concrete is used
2. *Ladders or steps—number, location*	2. Ten ladders, five on each side	2. Eleven ladders in large pool; eight in small pool; at regular intervals	2. Brass ladder at each corner
3. *Are they recessed?*	3. No	3. Yes	3. No
1. *Runway—material, width*	1. Concrete, 16′ on sides, 20′ on ends	1. Concrete, 2′ wide	1. Concrete, 4′ wide
2. *Slope to scum gutter or to drains?*	2. To scum gutter	2. To drains	2. To drains at pool curb
3. *Curb at edge of pool? Describe*	3. No	3. Yes; concrete, 4″ high, 1′ wide (both pools)	3. Yes; 6″ concrete curb 10″ wide
1. *Diving towers—location, description*	1. One 10′ tower	1. One 10′ tower at deepest point with one spring board and pedestal board	1. No tower
2. *Spring boards and floats—location, description*	2. One spring board at corners of deep end. Slide at shallow end	2. Three regulation Everwear spring boards; 1—18″ above water, 1—3½′, and 3rd on tower	2. Two spring boards at deep end, 15′ from sides. One raft 4′ square not fastened
1. *Source of water supply*	1. City	1. City	1. City
2. *Kind of pipe*	2. ———	2. Malleable iron	2. ———
3. *Inlets and outlets—number, location, size*	3. 1—4″ inlet on shallow end at bottom; 1—8″ main outlet in deep end; 12—2″ sucker pipes	3. 6—6″ inlets at shallow end of large pool; 4—6″ inlets at shallow end of small pool; 5—8″ outlets in bottom, deep end of large pool; 4—8″ outlets at deep end of small pool	3. 1—6″ inlet at shallow end; 1—12″ outlet at maximum depth, 15′ from deep end of pool, 6″ overflow at deep end
4. *Water heated for pool and showers? Kind of heater*	4. No	4. No	4. No
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Recirculation	1. Recirculation; fill and draw	1. Fill and draw; continuous flow (6″ overflow pipe at deep end, continuous flow into stream)
2. *Filters—number, kind, size*	2. Two American Water Softener Co. filters, 9′ in diameter	2. Four Ludo filters in use, 8 not used; 1,000,000 gallons	2. None
3. *Pumps—name, number, type*	3. One, same company	3. Three Gauls, 1 Platt, centrifugal	3. None
1. *Disinfectants used*	1. Chlorination, continuous; blue vitriol used in filters	1. Chlorination, continuous; copper sulphate; alum (4 alum pots, 25 lbs. each); lime applied to walls and bottom when cleaned	1. None
2. *Type and make of equipment*	2. ———	2. Wallace & Tiernan chlorinator	2. ———
1. *Time required to fill pool*	1. Nineteen hours	1. For both pools—5 hours	1. Two hours
2. *Time required to empty pool*	2. Two hours	2. For both pools—5 hours	2. Four hours
3. *How often is water changed?*	3. Weekly	3. Weekly	3. Three times weekly
4. *How often is water tested?*	4. ———	4. ———	4. ———
5. *By whom?*	5. ———	5. ———	5. ———
1. *Pool area enclosed? Type, dimensions of enclosure*	1. No	1. Yes; Cyclone fence, 225′ x 218′	1. Yes; 6′—8′ concrete wall, 160′ x 80′
2. *Describe area surrounding pool*	2. ———	2. Sand beach, 1 strip 101′ x 30′, another 225′ x 30′; 3′ cement walks and runways surrounding pools	2. Wall next to runway
3. *Facilities for spectators?*	3. 35 benches along sides and ends, roped off	3. Seats and benches shaded by canvas awnings surrounding pools	3. Benches around wide walk
BATH HOUSE			
1. *Outside dimensions*	1. 165′ x 112′ (approx.)	1. ———	1. 160′ x 8′
2. *Construction materials*	2. ——— (Bintz type pool)	2. ———	2. Roof projecting from wall shelters dressing compartments, slate coated asphalt shingles
3. *Facilities enclosed within building?*	3. Yes	3. Yes	3. Yes
1. *Separate provision for sexes?*	1. Yes	1. Yes	1. No; women 3 days, men 4 days per week
2. *Basket, bag, or locker system used?*	2. Locker system	2. Basket system	2. Dressing rooms, 8 hooks in each for clothes
3. *Provision for: (dimensions)*	3. ———	3. Men and boys—60′ x 60′	3. Men and women—152′ x 4′
Men and boys		Women and girls—60′ x 60′	
Women and girls			
Number of			
Dressing rooms	Dressing rooms, men 1, women 1	Dressing rooms, men 1, women 1	Dressing rooms, 38 (4′ x 4′)
Dressing booths			
Lockers	Lockers, men 426, women 260		
Showers	Showers, 12 each	Showers, 98	Showers, 4
Suits		Suits, 700	
Towels	Towel service supply	Towels, 3,770	
Baskets		Baskets, 1,000	
Toilets	Toilets, men 2, women 3	Toilets, 13	Toilets, men 1, women 2
Urinals	Urinals, 4	Urinals, 3	Urinals, 1
Lavatories	Lavatories, 1 each	Lavatories, 6	

SWIMMING POOLS (Continued)	TROY, New York (Continued)	TULSA, Oklahoma (Continued)	WATERBURY, Connecticut (Continued)
Other facilities provided	Office First aid room Supply room Filter room Engine room Men's public toilet—2 urinals, toilet, lavatory Women's public toilet—2 toilets, lavatory	Office—20' x 18' Refectory and lounging room—125' x 60' Waiting room—20' x 15' Guards' dressing room—15' x 12'	Closet for workers' clothes
1. *Pumps, filters, etc., located within building?* 2. *Bath house lights—location, voltage* 3. *Lights for pool area—location, type, voltage*	1. Yes 2. 110—220 volts 3. 13—200 watt ornamental lights	1. Yes 2. 110 volts 3. 220 volts; 32 large lights (with reflectors) on 50' poles placed around the two pools; 10 outside lights on building	1. Not any 2. 7—60 watt lights under roof and over compartments 3. 4—150 watt lights along one side of bath house roof
What life saving equipment present?	Life saving pole	Life line Four regulation cork life preservers	Two life preservers
POOL CONSTRUCTION COST	*Cost of Pool and Bath House* Excavation and grading ..$26,738.17 Plumbing & water supply 5,795.00 Filters ..... 2,400.00 Chlorinator ..... 750.00 Lighting ..... 1,692.57 Engineering service ..... 4,279.80 Miscellaneous equipment.. 4,736.00 Other ..... 5,200.46 TOTAL.....$51,592.00	*Cost of Pool and Bath House* Excavation and grading ..$ 6,000.00 Concrete work ..... 22,000.00 Plumbing & water supply. 6,000.00 Purification system ..... 2,000.00 Fence ..... 375.00 Lighting ..... 2,500.00 Engineering service ..... 1,200.00 Miscellaneous equipment.. 1,500.00 TOTAL.....$41,575.00	Excavation and grading..$ 4,593.00 Concrete and stone work Material .....$12,300 Labor ..... 5,200 17,500.00 Plumbing & water supply 1,950.00 Lighting ..... 178.00 Painting ..... 210.00 Miscellaneous equipment.. 515.00 Other ..... 250.00 TOTAL.....$25,196.00
BATH HOUSE CONSTRUCTION COST	Included in pool construction statement	Included in pool construction statement. Filtering station formerly used by city converted into municipal pool; the two settling basins used for pools and largest building converted into bath house	General construction ..... $2,430.00 TOTAL..... $2,430.00 (Plumbing and lighting costs included in pool construction statement)
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Manager—10 a. m.—10 p. m., $140 per mo., general supervision Cashiers (2)—6 hrs., $84 per mo., towels, keys, funds Life guards (2)—6 hrs., $100 per mo. Attendants (6)—$535 per mo., locker man; 2 women and a man as shower attendants; filter room attend.; night watchman and janitor	Manager—$175 per month Cashier—10 hrs.; $160 per month Life guards (4)—9 hrs., $125 per month Attendants (8)—9 hrs., $110 per month	Manager—10—14 hrs., 50c per hr., supervises, drains and cleans pool Life guards (2)—boy 4 days per wk., 10—14 hrs., 35c per hr., also assists manager; girl 3 days per wk., 10—14 hrs., $9 per wk. Matron—10 hrs., 3 days per wk., $9 per wk., supervises
1. *Fees charged — admission, suits, towels, etc.* 2. *Suits supplied all bathers?* 3. *Suits and towels laundered at pool?*	1. Admission—adults 25c, children free in a. m., 10c in afternoon; towels 5c 2. None at all 3. No	1. Admission—adults 15c, children free in a. m., 15c in p. m.; suits 15c, towels 5c 2. If requested 3. No	1. No fees charged 2. None at all 3. No
1. *Time limit for bathers?* 2. *Hours open* 3. *Days per week* 4. *Length of season* 5. *Attendance*	1. No 2. 10—12, 1—5, 6—10 p. m. 3. Seven days per week 4. June 23rd—Sept. 15th, 1928 5. 1927 (*Estimate*) 1928 June ..... 4,205 July ..... 15,000 16,140 August ..... 9,000 11,763 September .. 355 TOTAL.... 24,000 32,463	1. No; except during free period, 9 a. m.—12 noon 2. 7 a. m.—10 p. m. 3. Seven days per week 4. Three and one-half months 5. 1927 July ..... 34,061 August ..... 14,362 September 1st-15th .... 5,602 TOTAL..... 54,025 1928 June ..... 13,669 July ..... 29,047 August 1st-18th ..... 16,450 TOTAL..... 59,166	1. No 2. 9 a.m.—10 p.m. (In morning pool is half filled and used by children) 3. Seven days per week 4. Ten weeks 5. 1928 June 11,200 July 25,300 (Average for past 3 yrs. is 50,000 to 51,000) Aug. 13,000 Sept. 1,500 TOTAL 51,000
1. *Source of construction funds* 2. *If receipts exceed expenses, how is balance used?* 3. *If deficit, how met?* 4. *Provision for depreciation*	1. $50,000 city bond issue 2. Receipts go to city fund 3. By budget 4. None	1. Park fund 2. Deposited to account of park fund 3. From general park fund 4. None	1. Bond issue 2. ——— 3. From playground budget 4. ———
FINANCIAL STATEMENT *Expenditures*	1928 Payroll .....$3,004.75 Light and power..... 308.04 Purification ..... 197.86 Towel supply service..... 90.30 Equipment ..... 321.33 Supplies ..... 639.87 TOTAL.....$4,562.15	(Estimates) Payroll .....$5,350.00 Light and power..... 133.75 Purification ..... 200.00 Laundry ..... 1,260.00 Equipment ..... 150.00 Supplies ..... 50.00 TOTAL.....$7,143.75	Payroll .....$1,077.50 No fuel charge; light expense not segregated from park accounts; water free.
Receipts	1928 Admission .....$2,952.55 Fees from towels ..... 45.00 TOTAL.....$2,997.55	TOTAL.....$7,295.00	No receipts

SWIMMING POOLS	WATERTOWN, New York	WHEELING, West Virginia	WICHITA, Kansas
DESCRIPTION			
1. *Name of pool*	1. Thompson Park Pool	1. Wheeling Park Pool	1. Municipal Beach
2. *Year built*	2. 1924	2. 1915 (approx.)	2. 1923
3. *Location*	3. Thompson Park	3. Wheeling Park	3. South Riverside Park, near river
1. *Shape*	1. Rectangular	1. Rectangular	1. Irregular, general outline circular
2. *Dimensions—*	2. (a) 105′ x 45′	2. (a) 180′ x 50′	2. (a) 282′ x 228′ (56,700 sq. ft.)
(a) *size*	(b) 3½′—5¼′—9½′—7½′	(b) 1′—9′	(b) 0 — 10′
(b) *depth*			
3. *Thickness of wall*	3. 10″	3. 8″	3. 12″
4. *Thickness of bottom*	4. 6″	4. 6″	4. 5″
5. *Capacity*	5. 200,000 gallons (approx.)	5. 335,000 gallons	5. 1,800,000 gallons
CONSTRUCTION			
1. *Material used in construction*	1. Concrete, reenforced—walls with ½″ and 5/8″ iron rods; bottom, metal fabric 35 lbs. per 100 sq. ft.	1. Concrete	1. Concrete, reenforced
2. *How are deep and shallow sections separated?*	2. By a rope	2. Ropes at 5′ and 6′ depths	2. By floats
3. *Scum gutter completely surrounding pool?*	3. Yes	3. No	3. Yes
1. *Hand rail? Describe*	1. No; ring bolts and rope 4″ below top of pool wall	1. No	1. Yes; pipe
2. *Ladders or steps—number, location*	2. Four ladders; two at deep end and two at 5′ 6″ depth; steps in corners of shallow end.	2. Four iron ladders on each side, center to deep end, equidistant apart; also one at deep end; wooden ladder to diving tower	2. Two ladders at diving platform in deep area
3. *Are they recessed?*	3. No	3. No	3. No
1. *Runway—material, width*	1. Concrete, 6′ wide	1. Concrete, 6′ wide	1. Concrete walk 8′ wide around pool except shallow end which has walk 3′ wide, adjoining sand beach
2. *Slope to scum gutter or to drains?*	2. To outer edge to lawn	2. To outer edge of walk	2. ———
3. *Curb at edge of pool? Describe*	3. Yes; concrete curb 12″ wide, 10″ above runway	3. No	3. ———
1. *Diving towers—location, description*	1. None	1. 18′ tower on runway at center of deep end; platform 6′ x 4′	1. ———
2. *Spring boards and floats—location, description*	2. One spring board at center of deep end	2. Regulation board at one corner of deep end; also one stand 10′ x 10′ at 5′ depth in center of pool	2. 16 spring boards
1. *Source of water supply*	1. City	1. City	1. City water and wells
2. *Kind of pipe*	2. Cast iron pipe	2. Galv. iron	2. Galv. and cast iron
3. *Inlets and outlets—number, location, size*	3. 1—4″ inlet pipe; 1—10″ outlet pipe at maximum depth	3. 4—4″ inlets, 3 at shallow end and 1 at side wall 40′ from shallow end; 1—10″ outlet pipe near corner at deep end	3. 1—8″ and 2—2″ inlets; 18″ sewer and 9—4″ openings in scum gutter
4. *Water heated for pool and showers? Kind of heater*	4. For showers only	4. No	4. No
PURIFICATION			
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Fill and draw	1. Recirculation	1. Continuous flow, 250 gallons of fresh water daily
2. *Filters—number, kind, size*	2. None	2. Two, Wallace and Tiernan, 6′ in diameter, 7′ high	2. One 72″ Graver filter (for showers only)
3. *Pumps—name, number, type*	3. One, Gould centrifugal (used to circulate water within pool to aid distribution of chlorine)	3. One, Wallace & Tiernan	3. One Fairbanks Morse, 3″; one Swaby, 3″
1. *Disinfectants used*	1. Chlorination, continuous	1. Chlorination, continuous	1. Chlorination, continuous; copper sulphate
2. *Type and make of equipment*	2. Wallace and Tiernan	2. ———	2. Wallace and Tiernan chlorinator
1. *Time required to fill pool*	1. Approx. two hours	1. Eight hours	1. Twenty-eight hours
2. *Time required to empty pool*	2. Three hours	2. Six hours	2. Seven hours
3 *How often is water changed?*	3. Twice weekly	3. Three to four times per month	3. Every two weeks
4. *How often is water tested?*	4. Daily	4. Three times weekly	4. Daily by pool manager; weekly by city bacteriologist
5. *By whom?*	5. City chemist	5. City Chemist	5. ———
1. *Pool area enclosed? Type, dimensions of enclosure*	1. Yes; Cyclone fence 50′ from pool	1. Yes; bath house on one side and across deep end, 5′ fence (wooden posts and frame with No. 9 upright wire pickets) on other side and across shallow end	1. Yes; 5′ Cyclone chain link fence, 2″ mesh No. 9 wire, barbed top
2. *Describe area surrounding pool*	2. Graded lawn	2. Sand beach 48′ wide between fence and side of pool, 6 benches against fence and along beach side for bathers	2. Pool built in depressed area, natural incline toward pool
3. *Facilities for spectators?*	3. Park benches on lawn	3. None	3. Seats for 1,200, canopied swings, drinking fountain, large concession building used as shelter building
BATH HOUSE			
1. *Outside dimensions*	1. 53′ 5″ x 23′ 6″	1. Women's section—220′ x 12′ Men's section and filtration system—60′ x 28′	1. 175′ x 84′
2. *Construction materials*	2. Concrete blocks and stucco	2. Wood	2. Reenforced concrete cement blocks, wood and composition roof, cement floors
3. *Facilities enclosed within building?*	3. Yes	3. Yes	3. Yes
1. *Separate provision for sexes?*	1. Yes	1. Yes	1. Yes
2. *Basket, bag, or locker system used?*	2. Basket and locker system	2. Locker system	2. Basket system
3. *Provision for: (dimensions)*	3. ———	3. Men and boys—80′ x 28′	3. Men and boys—70′ 6″ x 43′
Men and boys		Women and girls—174′ x 12′	Women and girls—43′ x 41′ 6″
Women and girls			
Number of			
Dressing rooms	Dressing rooms, 2	Dressing rooms, men 2	
Dressing booths	Booths, men 16, women 16	Booths, women 84	Dressing booths, men 64, women 40
Lockers	Lockers, 50	Lockers, men 427, women 62	
Showers		Showers, men 3, women 1	Showers, 8 each
Suits			Suits, 2,000
Towels			Towels, 3,000
Baskets	Baskets, 100		Baskets, 1,500
Toilets	Toilets, 1 each	Toilets, 1 each	Toilets, 5 each
Urinals		Urinals, 1	Urinals, 3
Lavatories	Lavatories, 2 each	Lavatories, 1 each	Lavatories, men 3, women 2

SWIMMING POOLS (Continued)	WATERTOWN, New York (Continued)	WHEELING, West Virginia (Continued)	WICHITA, Kansas (Continued)
Other facilities provided		Room for filtration plant Small room to store golf supplies Refreshment counter at end of women's building facing pool	Electric hairdriers Office 20' x 14' Attendants' room Storage room Drying yard Private shower and bathtub on women's side
1. *Pumps, filters, etc., located within building?*	1. In special building	1. Yes	1. Yes
2. *Bath house lights—location, voltage*	2. 110 volts	2. Row of small lights over aisle entire length of women's section, same in men's dressing and locker rooms	2. Overhead lights, 110 volt; 3 flood lights in front of building
3. *Lights for pool area—location, type, voltage*	3. Pool not lighted	3. 11—200 watt lights for pool and beach, 6 on women's side and 4 at deep end; all mounted on roof of b.h., one on pole near entrance	3. 110 volt, 5—1000 watt over deep area, 3—1000 watt over shallow area
What life saving equipment present?	Ropes	None	Ropes and hooks Life buoys Life guard towers
POOL CONSTRUCTION COST	*Pool and Bath House* TOTAL .....$25,340.66 (Started by contractor but completed by city departments)	Purification system .....$5,000.00 .... TOTAL .....$15,000.00 (Other items not available)	Concrete work .....$18,500.41 Purification system ..... 2,000.00 Fence (approx.)..... 500.00 Lighting ..... 179.04 TOTAL .....$21,179.45 (Designed by Park Board)
BATH HOUSE CONSTRUCTION COST	(See pool construction cost statement)	TOTAL .....$10,000.00 (Individual items not available; lumber purchased at abnormally low price)	General construction ....$26,129.51 Plumbing (incl. showers) 1,825.93 TOTAL .....$27,955.44 (Pool and bath house construction statements do not include expenditures for grading, landscaping, dike improvement and protection from river overflow which increases total for all construction work to $85,000. Cost abnormal also due to flood experienced during construction.)
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Manager—$45 per wk. Life guards (2)—man $30 per wk., woman $19 per wk. Attendants (2)—man $25 per wk., woman $20 per wk.	Special supervisor—8 hrs., 50c per hr., charge of filtration plant Cashier—8 hrs., $4 per day, sells tickets Life guard—9—12, 3—6, 7—9, $150 per mo., manager and guard Life guard—11—3, 5—9, $120 per mo. Life guard—special days, $4 per day (approx. 14 days) Attendants (4)—man, 8 hrs., $4 per day, men's lockers; man, special days, $3 per day (approx. 20 days), men's lockers; woman, 8 hrs., $4 per day, women's lockers; woman, special days, $4 per day (approx. 20 days), women's lockers Cleaner—8 hrs. at night, $4 per night once a wk., empties and cleans pool	Manager Cashier Life guards (4) Attendants (approx. 18) Matron
1. *Fees charged — admission, suits, towels, etc.*	1. No fees charged	1. Admission 15c	1. Admission .....10c " and towel.....15c " and suit.....20c " suit and towel....25c
2. *Suits supplied all bathers?*	2. No	2. No	2. If desired
3. *Suits and towels laundered at pool?*	3. No	3. No	3. Suits, not towels
1. *Time limit for bathers?*	1. Yes: variable	1. No	1. No
2. *Hours open*	2. 9:30—12, 1:30—4:30 p.m.; only adults from 6—8 p.m.	2. 9 a.m.—9 p.m.	2. 2—10 p.m.
3. *Days per week*	3. Seven days per week	3. Seven days per week	3. Seven days per week
4. *Length of season*	4. Ten weeks	4. June 6th—Sept. 5th	4. About June 1st—Sept. 10th
5. *Attendance*	5. ———	5. 1928 June .....5,624 July .....23,275 Aug. .....22,416 Sept. .....1,660 TOTAL 52,975	5. 1925—102,700 1926— 87,000 1927— 77,350 1928— 96,300
1. *Source of construction funds*	1. ———	1. Tax funds	1. Park improvement bonds
2. *If receipts exceed expenses, how is balance used?*	2. No receipts	2. Deposited in general park fund	2. Portion goes into recreation fund, balance for pool improvements
3. *If deficit, how met?*	3. Tax levy	3. ———	3. This has never occurred
4. *Provision for depreciation*	4. ———	4. None	4. Savings account to be opened this year for pool depreciation
FINANCIAL STATEMENT *Expenditures*	1928 Payroll .....$1,813.25 Light and power..... 6.00 Supplies ..... 259.16 TOTAL .....$2,078.41 1927—TOTAL $1,988.35	1928 Payroll .....$1,810.68 Light and power..... 54.00 Supplies and miscellaneous.. 250.32 TOTAL $2,115.00	1928 (*estimates*) Payroll .....$6,000.00 Light and power..... 600.00 Water (city) ..... 800.00 .... TOTAL $9,456.01
Receipts	No receipts	1928 Admission .....$7,946.45 TOTAL $7,946.45	1928 TOTAL $12,392.86

SWIMMING POOLS	WILMINGTON, Delaware
DESCRIPTION	
1. *Name of pool*	1. Price Run Pool
2. *Year built*	2. 1925
3. *Location*	3. Price Run Park
1. *Shape*	1. Irregular (general outline oval)
2. *Dimensions—* (a) *size* (b) *depth*	2. (a) 480′ long 125′ wide in center 150′ wide at one end 180′ wide at other end (b) 0—10′ (approx. 80% of water area wadable)
3. *Thickness of wall*	3. 18″
4. *Thickness of bottom*	4. 4″
5. *Capacity*	5. 1,750,000 gallons
CONSTRUCTION	
1. *Material used in construction*	1. Concrete
2. *How are deep and shallow sections separated?*	2. Line of buoys at 7′ depth
3. *Scum gutter completely surrounding pool?*	3. Yes; but is interrupted each 20′ by built-in concrete blocks 5′ long. These serve as seats for bathers.
1. *Hand rail? Describe*	1. Around diving tower only, 2″ galv. iron pipe. Water shallow at edges
2. *Ladders or steps—number, location*	2. None
3. *Are they recessed?*	3. ———
1. *Runway—material, width*	1. Concrete, 8′ wide
2. *Slope to scum gutter or to drains?*	2. To drains, at outer edge
3. *Curb at edge of pool? Describe*	3. No
1. *Diving towers—location, description*	1. Concrete platform 18′ square, 2′ 6″ above water
2. *Spring boards and floats—location, description*	2. Two boards on tower 4′ above water; one on steel frame 10′ from water
1. *Source of water supply*	1. City
2. *Kind of pipe*	2. Cast iron
3. *Inlets and outlets—number, location, size*	3. 8—2½″ inlets; 2—12″ outlets
4. *Water heated for pool and showers? Kind of heater*	4. No.
PURIFICATION	
1. *Methods used—recirculation, fill and draw, continuous flow*	1. Fill and draw
2. *Filters—number, kind, size*	2. ———
3. *Pumps—name, number, type*	3. ———
1. *Disinfectants used*	1. Chlorination, continuous; chlorine (solid form) added to water if test shows need. Some water entering pool constantly, depending on number of bathers
2. *Type and make of equipment*	2. Wallace & Tiernan chlorinator applies chlorine gas as water enters pool
1. *Time required to fill pool*	1. Twenty-four hours
2. *Time required to empty pool*	2. Six hours
3. *How often is water changed?*	3. Weekly
4. *How often is water tested?*	4. Daily
5. *By whom?*	5. Board of Health
1. *Pool area enclosed? Type, dimensions of enclosure*	1. Yes; 7′ fence, No. 9 wire link
2. *Describe area surrounding pool*	2. On one side and ends between runway and fence is 25′ width of lawn—inclines toward fence
3. *Facilities for spectators?*	3. Terrace leading from bath house to pool; lawn used somewhat by bathers but practice not encouraged
BATH HOUSE	
1. *Outside dimensions*	1. 155′ x 50′
2. *Construction materials*	2. Red brick walls, gray slate roof, concrete floors
3. *Facilities enclosed within building?*	3. Yes
1. *Separate provision for sexes?*	1. Yes
2. *Basket, bag, or locker system used?*	2. Locker system
3. *Provision for: (dimensions)* *Men and boys* *Women and girls*	3. Men 630, boys 172 Women & girls 440
Number of	
Dressing rooms	
Dressing booths	Booths, women 70
Lockers	Lockers, 1242
Showers	Showers, men 8, women 3
Suits	
Towels	
Baskets	
Toilets	Toilets, 3 each
Urinals	Urinals, 4
Lavatories	Wash basin, 1 each

SWIMMING POOLS (Continued)	WILMINGTON, Delaware (Continued)
Other facilities provided	Office for manager and staff 2 attendants' rooms for supplies and equipment
1. *Pumps, filters, etc., located within building?*	1. No.
2. *Bath house lights—location, voltage*	2. 75 watt lights—3 in entry, 1 at entrance, 1 at rear, 12 in locker rms., 2 in toilet rms.
3. *Lights for pool area—location, type, voltage*	3. 13—250 watt lights on 12′ iron posts at outer edge of pool, including one on diving tower. (Present lights inadequate; to be replaced with large Cahill lights with reflectors)
What life saving equipment present?	First aid equipment Cots and blankets Buoys Oxygen pump on call
POOL CONSTRUCTION COST	Excavation and grading..$ 4,114.30 Concrete work..... 44,778.13 Plumbing and water supply 4,198.24 Purification system ..... 1,802.97 Fence ..... 1,843.45 Lighting ..... 2,044.07 Engineering service (during construction)... 1,050.00 Diving tower equipment.. 397.65 TOTAL.....$60,228.81 (Plans prepared by Park Commission's engineer)
BATH HOUSE CONSTRUCTION COST	General construction ....$24,501.39 Plumbing (incl. showers) ..... 2,734.04 Lighting ..... 598.49 Architect ..... 1,736.44 Lockers ..... 4,335.12 Dressing booths ..... 1,798.00 Miscellaneous equipment.. 1,711.74 TOTAL.....$37,415.22
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Manager—10 hrs., $50 per wk., general supervision Cashier—7 hrs., $30 per wk., sell tickets Life guards (5)—8 hrs., 1 at $30 per wk., 1 at $25, 3 at $20, also instruct Key rm. attendants (2)—8 hrs., $20 per wk. Locker rm. attendants (2)—8 hrs. $20 per wk., check clothes, supervise lockers Night watchman—10 hrs., $20 per wk., cleans building and premises
1. *Fees charged—admission, suits, towels, etc.*	1. Admission — a.m. free; p.m. adults 25c, children 15c
2. *Suits supplied all bathers?*	2. No
3. *Suits and towels laundered at pool?*	3. No
1. *Time limit for bathers?*	1. No
2. *Hours open*	2. 10 a.m.—12, 2—9 p.m.
3. *Days per week*	3. Six days per week
4. *Length of season*	4. June 10th—Sept. 10th
5. *Attendance*	5.

	1926	1927	1928
June	13,682	12,939	10,40
July	38,104	36,363	43,05
Aug.	32,808	10,344	30,94
Sept.	87,394	1,351	85
TOTAL	171,988	60,997	85,26

1. *Source of construction funds*	1. City appropriation to park fund
2. *If receipts exceed expenses, how is balance used?*	2. For improvements in vicinity of pool
3. *If deficit, how met?*	3. From current appropriation
4. *Provision for depreciation*	4. None

FINANCIAL STATEMENT	1928
Expenditures	Payroll ....$5,952.6 Light and power .... 51.1 Purification ..... 312.7 Equipment ..... 126.0 Supplies ..... 273.7 Miscellaneous ..... 72.5 TOTAL.....$6,788.9 1927—TOTAL.....$6,691.6 1926—TOTAL.....$7,488.1
Receipts	1928 Admission .....$6,927.5 TOTAL.....$6,927.5 1927—TOTAL.....$5,249.1 1926—TOTAL.....$8,334.1

Bathing Beaches

The problems of operation and maintenance of bathing beaches are similar to those of the swimming pools. For both facilities the factors involved in construction and operation of bath houses are practically identical. Accordingly, comments accompanying the reports on swimming pools will apply to the main problems of bath houses serving beaches. Again attention is drawn to the building design and floor plans of the bath house at West Green Lake Beach, Seattle, Washington, shown on Page 302.

In comparison with the swimming pool and bath house units, the initial capital investment required for a bathing beach is decidedly lower, as reports of expenditures for the establishment and equipment of the various beaches indicate.

The problem of water purification in connection with bathing beaches is a more difficult one. Among the beaches reported, two only use some disinfectant, the remainder apparently relying upon the purity and circulation of the natural water supply to meet the situation.

BATHING BEACHES DESCRIPTION	EVANSTON, Illinois	GLENS FALLS, New York	LONDON, Ontario
1. *Name of beach* 2. *Location* 3. *Year established*	1. Six municipal beaches 2. Along shore of Lake Michigan 3. 1924	1. Municipal Beach 2. Hudson River 3. 1926	1. Gibbons Beach 2. River Thames 3. 1921
1. *Length* 2. *Width* 3. *Kind of surface* 4. *General contour* 5. *If enclosed, dimensions and describe*	1. Average one city block each 2. ——— 3. Sand 4. Along made park land 5. Not enclosed	1. 600 yards 2. 200 yards, maximum width 3. Sand 4. Cove in river; heavy growth of trees bordering beach 5. Not enclosed	1. 100 yards 2. 50 yards 3. Sand 4. Straight beach 5. ———
1. *Disinfection of water—method and frequency of application* 2. *Beach lights—location, type, voltage*	1. None 2. Not lighted	1. Considered unnecessary 2. Not lighted	1. None 2. Not lighted; closed at dusk
Beach Facilities	Murdock outdoor drinking fountain Concession stand at three beaches Diving piers at end of breakwater piers on each beach	Refreshment facilities Float anchored to boom near center Toboggan Picnic grounds Teeters Volley ball court	Drinking fountain Refreshment facilities 12′ iron tower Two floats across river in deep water Benches Sand craft tools
BATH HOUSE 1. *Outside dimensions* 2. *Construction materials* 3. *Facilities completely enclosed within building?*	1. ——— 2. Wood 3. Yes	1. ——— 2. Wood 3. ———	1. ——— 2. Metal lath and stucco, imitation metal tile roof 3. Yes
1. *Provision for: (dimensions)* *Men and boys* *Women and girls* 2. *Basket, bag, or locker system?*	1. Men and boys Women and girls 2. ———	1. Men and boys Women and girls 2. Basket	1. Men, 100; boys, 100; women and girls, 100 2. Pigeon holes
Number of *Dressing rooms* *Dressing booths* *Lockers* *Showers* *Baskets* *Toilets* *Urinals*	Dressing rooms and booths, men 12, women 20 Toilets, 4 Urinals, 2	Dressing rooms, 24 Baskets, 250 (many change clothing at home) Toilets, 2 (outside)	Dressing rooms for ladies; open room for men, boys, and girls Toilets, 4
Other bath house facilities	None	Life guards' room Checking space Storage and concession space	Attendants' room Guards' room Laundry
1. *Heater provided for shower baths?* 2. *Location and voltage of lights in bath house* 3. *Life saving equipment provided*	1. No 2. ——— 3. Ropes, boats, life preservers, first aid kits	1. ——— 2. ——— 3. Boat, ropes, life buoy, first aid supplies, cot, blankets	1. No 2. 6—150 watt lights (110 volts) midway of bath house 3. Three life belts, raft, first aid kits

BATHING BEACHES (Continued)	EVANSTON, Illinois (Continued)	GLENS FALLS, New York (Continued)	LONDON, Ontario (Continued)
BEACH AND BATH HOUSE *Beach Construction Cost*	Diving platforms .....$150.00 Boats ..... 50.00 TOTAL $200.00		Diving tower .....$120.00 Floats (small) 50c each..... 50.00 TOTAL $170.00
Bath House Construction Cost	Only one of six beaches has bath house. This built approximately ten years ago—no cost items available. Tendency locally is to eliminate bath house accommodations which attract non-residents to beaches.	TOTAL (approx.)....$2,200.00	General construction.....$7,517.92 Plumbing (incl. showers).. 882.74 Lighting ..... 110.00 TOTAL $8,510.66
1. *Source of construction funds*	1. City tax funds	1. Zonta Club raised funds	1. $5,000 donation, family of Sir George Gibbons, K.B., K.C.; remainder annual appropriation
2. *If receipts exceed expenditures, how is balance used?*	2. Park Maintenance Fund	2. ———	2. ———
3. *If deficit, how met?*	3. Park budget	3. Operated by Recreation Commission	3. By city appropriation
4. *Provision for depreciation*	4. Park budget	4. ———	4. None
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Supervisor and captain of life guards (all beaches)—$150 per mo. Life guard (each beach)—2 to 9 p.m. Junior life guards (4 each beach)—2 to 9 p.m. Matron—visits all beaches as censor	Life guard and supervisor—8 hrs., $30 per wk. Assistant life guard (woman)— 8 hrs., $15 per wk. Man and wife supervise building for concession privilege Night watchman (senior Red Cross life saver)	Supervisors (3)—10 a.m.-8 p.m., $70 per mo., direct activities Cashier—same hrs., $60 per mo., check room Life guards (3)—same hrs., $80 per mo. Attendant—9 a.m.-8 p.m., $60 per mo., janitor
1. *Fees charged—admission, suits, towels, etc.*	1. No charges	1. 5c for checking	1. Admission—adults 25c, children free; suit and towel 10c
2. *Suits supplied all bathers?*	2. No	2. None	2. No
3. *Suits and towels laundered at beach?*	3. No	3. No	3. No
4. *Method and frequency of cleaning beach*	4. Daily raking	4. Daily raking	4. Daily
1. *Time limit for bathers?*	1. No time limit	1. No time limit	1. No time limit
2. *Hours open*	2. 2 to 9 p.m.	2. 9 a.m. to sunset	2. 10 a.m to dusk
3. *Days per week*	3. Seven days per week	3. Seven days per week	3. Six days per week
4. *Length of season*	4. Fourteen weeks	4. Twelve weeks if weather warrants	4. Three months
5. *Attendance*	5. 1924 — 112,000 1925 — 136,750 1926 — 163,875 1927 — 526,630 1928 — 532,725	5. Ten weeks in 1928—32,140	5. 1924 — 3,500 1925 — 4,500 1926 — 12,000 1927 — 17,000 1928 — 18,000
FINANCIAL STATEMENT *Expenditures*	Payroll .....$3,600.00 Equipment ..... 250.00 Supplies ..... 100.00 Miscellaneous ..... 150.00 TOTAL $4,100,00	Payroll .....$530.00 Equipment ..... 50.00 Supplies ..... 50.00 TOTAL $630.00	Payroll .....$1,100.00 Laundry ..... 35.00 Equipment ..... 150.00 Supplies ..... 100.00 TOTAL $1,385.00
Receipts	Concession stands on three beaches $4,100.00		Admission .....$ 350.00 Fees from suits..... 50.00 Refreshments ..... 200.00 TOTAL .....$ 600.00

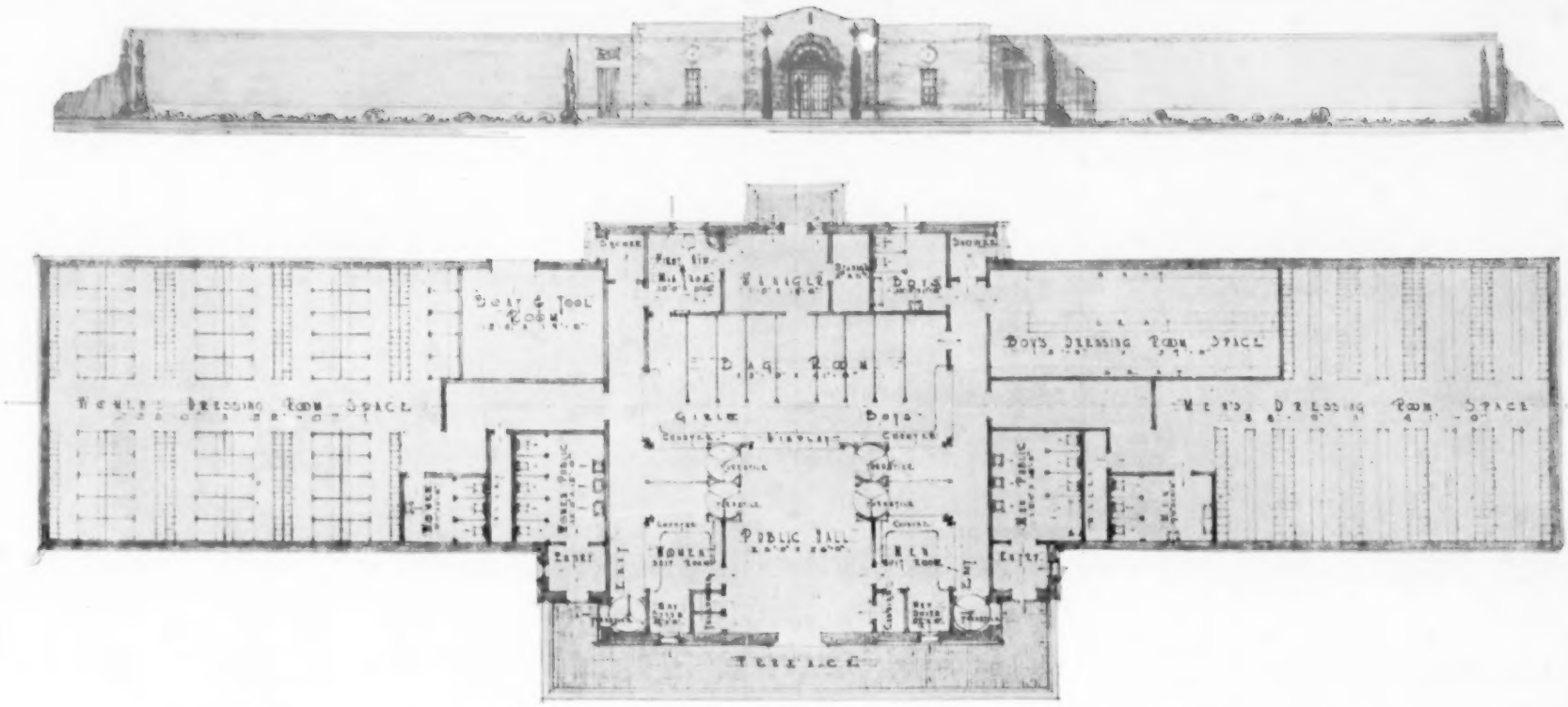
The bibliography given below provides much helpful information together with certain recommendations regarding the numerous problems involved in the construction and operation of outdoor swimming pools and other public bathing places.

	Publishers	*Cost*
Park Manual, Volume One, pages 358-376	A. S. Barnes & Co., 67 West 44th St., N. Y. C. (available through the P. R. A. A.)	$20.00
Play Areas, pages 27-32	A. S. Barnes & Co., 67 West 44th St., N. Y. C. (available through the P. R. A. A.)	2.50
Swimming Pools and Other Public Bathing Places—Standards for Design, Construction, Equipment and Operation	American Public Health Asso., 370—7th Ave., N. Y. C.	.25
Swimming Pool Construction, by W. C. Batchelor	Playground & Recreation Association of America 315—4th Ave., N. Y. C.	.10
Outdoor Swimming Pools, by Stanley Pinel	Engineering Extension Division, Iowa State College, Ames, Iowa	free
The Swimming Pool and Its Sanitation, by Jack T. Hinman	Iowa State Department of Health, Des Moines, Iowa	free

BATHING BEACHES	LOS ANGELES, California	MELROSE, Massachusetts	NASHUA, New Hampshire
DESCRIPTION			
1. *Name of beach*	1. Cabrillo Beach	1. Ell Pond Beach	1. Municipal Beach
2. *Location*	2. San Pedro Harbor	2. On pond	2. At river
3. *Year established*	3. 1926	3. 1927	3. 1924
1. *Length*	1. 2,000′	1. 150′	1. 350′
2. *Width*	2. 500′	2. 140′	2. 30′; maximum width 50′
3. *Kind of surface*	3. ———	3. Sand	3. Clay and gravel
4. *General contour*	4. ———	4. ———	4. ———
5. *If enclosed, dimensions and describe*	5. ———	5. Enclosed by temporary woven wire fence 3′ high	5. Not enclosed
1. *Disinfection of water—method and frequency of application*	1. None	1. None	1. None
2. *Beach lights—location, type, voltage*	2. Beach lighted	2. Not lighted	2. 3—150 watt lights on telephone poles along river bank
Beach Facilities	Drinking fountain Refreshment facilities Boat house Picnic table Fireplace Play area	Two bubblers on concrete pedestal in front of bath house Diving board, tower, and slide on float 150′ from water's edge Life guard platform on beach Benches Swings and see-saws Sand box	Drinking fountain near bath house door Diving tower on river bank, middle of beach Seven 12′ plank benches for spectators
BATH HOUSE			
1. *Outside dimensions*	1. ———	1. ———	1. 68′ x 20′
2. *Construction materials*	2. Temporary frame building	2. Foundation—24″ of stone Outside of building—brick veneer Stucco gable ends Walls and roof—⅞ beaded pine sheating Roof—Imperial French tile Toilet floors—concrete	2. Brick and cement; gravel roof over section including office, shower and toilet rooms
3. *Facilities completely enclosed within building?*	3. Yes	3. Yes	3. Yes
1. *Provision for: (dimensions)* *Men and boys* *Women and girls*	(Permanent facilities not yet installed)	1. Dressing rooms—men and boys 23′ x 17′, women and girls 23′ x 17′; Toilet and showers—men 10′ x 10′, women 10′ x 8′	1. Men and boys—27′ 4″ x 18′ 4″ Women and girls—27′ 4″ x 18′ 4″
2. *Basket, bag, or locker system?*		2. Locker	2. Pigeon holes
Number of			
Dressing rooms	(Permanent facilities not yet installed)		Dressing rooms, men 26, women 26
Dressing booths		Booths, men 15, women 15	Pigeon holes, 30 each
Lockers		Lockers, 513 each	
Showers		Showers, 2 each	Showers, 1 each
Baskets			
Toilets		Toilets, 2 each	Toilets, 1 each
Urinals		Urinal, 1	Urinal, 1
Other bath house facilities	(Permanent facilities not yet installed)	None	Office (13′ x 10′ 6″), 60 pigeon holes for checking clothes on extra busy days Cash register
1. *Heater provided for shower baths?*	1. No	1. No	1. No
2. *Location and voltage of lights in bath house*	2. ———	2. 8—40 watt lights	2. 50 watt lights—1 in office, in each toilet and shower, 2 in dressing rooms
3. *Life saving equipment provided*	3. Inhalator, emergency car operating from central life guard station contains first aid supplies, stretcher, blow kits, searchlight, life lines, life cans, rescue rope, warning bells, sirens	3. Boat, life ring, pulmotor, physician on call	3. No equipment
BEACH AND BATH HOUSE *Beach Construction Cost*	Excavation and grading (1,000,000 cu. yds. of sand pumped from harbor) ..... $115,000.00 Lighting ..... 600.00 Cape Cod life boats (2) .. 250.00 .... TOTAL $125,000.00	Surfacing ..... $600.00 Fencing ..... 53.37 Diving tower, slide, floats... 159.13 TOTAL $812.50	Lighting installed by city Diving towers and boards donated, cost approximately $30
Bath House Construction Cost	(Permanent building not yet erected)	General construction ..... $7,217.87 Lumber ..... 89.83 Plumbing (incl. showers) .. 74.27 Drinking fountain and bubblers ..... 85.87 Lighting ..... 21.55 Electrical supplies ..... 66.00 Lockers ..... 823.20 Equipment and supplies.... 1,371.59 TOTAL $9,750.18	General construction Material ..... $2,100 Labor ..... 1,800 $3,900.00 (for all work) Lighting ..... 50.00 Lockers and trim..... 600.00 Cement work, floors and septic tank ..... 500.00 Plumbing (incl. showers). 175.00 TOTAL ..... $5,225.00 (Architect's service donated—$100)
1. *Source of construction funds*	1. Bond issue	1. City appropriation	1. City appropriation
2. *If receipts exceed expenditures, how is balance used?*	2. ———	2. Receipts credited to general city funds	2. ———
3. *If deficit, how met?*	3. From tax fund	3. City appropriation	3. City appropriation
4. *Provision for depreciation*	4. From tax fund	4. None	4. None

BATHING BEACHES (Continued)	LOS ANGELES, California (Continued)	MELROSE, Massachusetts (Continued)	NASHUA, New Hampshire (Continued)
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Supervisor—full time, $250—$300, general supervision Life guards (6—*24 depending on season)—8 hrs., $150—$165 *In addition to paid guards, a group of trained volunteers (men and women) assist with life guard work; applies to area of 5 miles including Cabrillo Beach	Chief life guard and supervisor—8 hrs., $45 per wk., guard duty and general supervision of beach and bath house Cashier—6 hrs., $15 per wk. Life guards (2)—8 hrs., $21 per wk. Woman attendant—7 hrs., $10 per wk., checks for girls Boy attendant—7 hrs., $13 per wk., checks for boys Boy attendant—7 hrs., $10 per wk., helper in bath house	Supervisor—10:30 a.m.—9 p.m., $35 per wk. Life guards (2)—9 hrs., 1 at $21 per wk., 1 at $15 per wk., also clean beach and bath house
1. *Fees charged—admission, suits, towels, etc.*	1. No charges	1. Use of lockers for 2 hrs.— adults (local) 10c adults (non-residents) 25c children under 14 (local) 5c children under 14 (non-residents) 10c	1. Suits 20c, towels 10c, lockers 10c
2. *Suits supplied all bathers?*	2. ———	2. None	2. No
3. *Suits and towels laundered at beach?*	3. ———	3. No	3. No
4. *Method and frequency of cleaning beach*	4. Caretakers rake and clean beach daily	4. Refuse gathered daily	4. Raked
1. *Time limit for bathers?*	1. ———	1. No time limit	1. No time limit
2. *Hours open*	2. ———	2. 9 a.m.—8 p.m.	2. 10:30 a.m.—9 p.m.
3. *Days per week*	3. ———	3. Seven days per week	3. Seven days per week
4. *Length of season*	4. ———	4. Ten weeks	4. Three months, weather permitting
5. *Attendance*	5. 1925-1926, 2,752,000 1926-1927, 1,863,141	5. 1927 July ..... 21,000 August ..... 8,000 TOTAL..... 29,000	5. 1927 1928 June .. 1,906 July .. 9,000 8,398 Aug. .. 2,153 4,320 (thru 16th) Sept. .. 212 (1 wk.) ——— ——— TOTAL.. 11,365 14,624
FINANCIAL STATEMENT *Expenditures*	Payroll— Operation .....$1,800.00 Maintenance ..... 1,720.00 Supplies ..... 125.00 Light and water..... 350.00 Repairs (beach)..... 3,000.00 Equipment ..... 200.00 Insurance ..... 13.00 TOTAL $7,208.00	Payroll .....$1,500.00 Light and power..... 270.00 Equipment and supplies.... 650.00 Police officer ..... 110.00 TOTAL $2,530.00	1928 Payroll .....$1,108.90 Water and lights ..... 24.36 Laundry ..... 22.46 Supplies ..... 46.57 Power ..... 40.00 TOTAL .....$1,242.29 1927—TOTAL .....$1,444.95 1926—TOTAL $1,508 28
Receipts	No receipts	Fees from lockers.....$ 460.00 TOTAL .....$ 460.00	1928 Fees from lockers.....$ 462.55 Fees from suits..... 40.00 Fees from towels..... 70.00 Concession (rent) ..... 20.00 TOTAL .....$ 592.55 1927—TOTAL .....$ 428.35 1926—TOTAL .....$ 504.17

BATHING BEACHES DESCRIPTION	NEW BEDFORD, Massachusetts	ORLANDO, Florida	SEATTLE, Washington
1. *Name of beach* 2. *Location* 3. *Year established*	1. Municipal Beach 2. Near Hazelwood Park 3. Beach 1915; bath house 1916	1. Lorna Doone Beach 2. On lake 3. 1927	1. West Green Lake Beach 2. ——— 3. Beach in 1918; bath house later
1. *Length* 2. *Width* 3. *Kind of surface* 4. *General contour* 5. *If enclosed, dimensions and describe*	1. 300′ 2. 150′ 3. Sand 4. ——— 5. Not enclosed	1. 200′ 2. 50′ 3. Sand 4. ——— 5. Not enclosed	1. 600′ 2. 80′ 3. ——— 4. ——— 5. No
1. *Disinfection of water—method and frequency of application*	1. None	1. Chlorine in screen bottom box drawn thru water at 6′ depth; 50 lbs. each morning; water tested every two weeks	1. Chlorine distributed by motor boat, 4 hours daily
2. *Beach lights—location, type, voltage*	2. 3—500 watt flood lights—2 on pier, one on bath house; 11—40 watt lights on board walk	2. 8—50 watt flood lights on bath house; 2—1,000 watt lights on tower	2. Not lighted
Beach Facilities	Bubbler on board walk outside of bath house Refreshment facilities Two floats, 50′ x 16′ and 16′ x 10′; on opposite sides of pier at end; supported by pontoons; each has hand rail and two diving boards Pier 143′ x 50′ Sun shelter and benches on pier Board walk on three sides	Refreshment facilities Float 20′ x 20′ supported by 4 barrels 35′ diving tower 24′ x 20′, 50 yards from beach at 20′ depth	Drinking fountain on beach Refreshment facilities (private concession) Float, 40′ x 30′, anchored in deep water Diving tower, 24′ high Small children's raft
BATH HOUSE			
1. *Outside dimensions*	1. 280′ x 47′	1. Central portion—37′ x 37′ Two wings 40′ x 15′ each	1. Central section—60′ x 50′ Two wings, each 87′ x 38′
2. *Construction materials*	2. Outside walls—brick, concrete and stucco Floors—concrete Inside trim and booths—wood	2. Outside walls—wood Floors—concrete Roof—tar shingles	2. Foundation—concrete Walls—face brick and tile Floors—concrete Inside trim—VG fir Roof—tar and gravel
3. *Facilities completely enclosed within building?*	3. Yes	3. ———	3. Yes
1. *Provision for: (dimensions)* *Men and boys* *Women and girls*	1. Men 86′ x 47′ Boys 47′ x 28′ Women 86′ x 47′ Girls 47′ x 28′	1. Men and boys—40′ x 15′ Women and girls—40′ x 15′	1. Men—300 (41′ x 38′) Boys—400 (39′ x 15′) Women and girls—668 (52′ x 38′)
2. *Basket, bag, or locker system?*	2. Box	2. Basket	2. Bags and lockers
Number of *Dressing rooms*			Dressing rooms, men and boys 1 each; women and girls 1
Dressing booths	Dressing booths, men 114, women 130 Boxes, men 463, women 464	Dressing booths, men 6, women 36	Dressing booths, women and girls 25
Lockers			Lockers, men 300, women 268 Bags, boys 400
Showers	Showers, men 6, boys 4, women 6, girls 4	Showers, 2 each	Showers, men 1, women 1
Baskets		Baskets, 200	
Toilets	Toilets, men 6, women 11	Toilets, men 2, women 3 Lavatories, 2 each	Toilets, men 6, women 7
Urinals	Urinals, 8	Urinals, 1	Urinals, 2
Other bath house facilities	Hospital room—cot, table, chairs, first aid supplies Cashier's room Office	Two concession rooms—25′ x 13′ 6″ each Aisle between concession rooms—25′ x 8′	Boat and tool room Manager's office Public hall Storage room Bag room—public telephones Men's and women's suit rooms
1. *Heater provided for shower baths?*	1. No	1. No	1. No
2. *Location and voltage of lights in bath house*	2. 54—40 watt lights in aisles between booths; 6 in girls' checking room, 8 in boys'; 16 in toilets, office, etc.; 6 at entrance	2. 150 watt lights— 3 in administration room 3 in women's section 3 in men's section 2 in public toilets 6—100 watt lights around bath house and at entrance	2. 110 volts
3. *Life saving equipment provided*	3. Two boats, pulmotor and physician on call	3. Boat, Red Cross life saving rings, rope separates deep and shallow sections	3. First aid room, pulmotor, boats, life lines, supplies
BEACH AND BATH HOUSE *Beach Construction Cost*	Pier ..... $2,950.00 Sun shelter ..... 2,945.76 Retaining wall to support road ..... 1,125.00 TOTAL $7,020.76	Lighting ..... $380.00 Rope ..... 24.90 Boats ..... 75.00 TOTAL ..... $479.90 (Diving tower and float donated)	Diving tower (incl. cedar log float) ..... $ 400.00 Boats, each ..... 100.00 Disinfecting apparatus..... 1,600.00 TOTAL $2,100.00
Bath House Construction Cost	General construction ....$41,047.52 Plumbing (incl. showers). 4,866.48 Lighting (beach & b. h.).. 1,189.00 Lockers ..... 4,611.00 Architect ..... 2,548.21 TOTAL $54,262.21	General construction Material .....$2,163.98 Labor ..... 1,655.62 $3,819.60 Plumbing (incl. showers). 465.50 Lighting ..... 90.00 TOTAL ..... $4,375.10 (Work done by city departments; plumbing fixtures obtained from another building)	Plumbing (incl. showers)..$2,000.00 Lighting ..... 600.00 Lockers ..... 1,500.00 .... TOTAL $30,000.00



FRONT ELEVATION AND FIRST FLOOR PLAN OF THE WEST GREEN LAKE BATH HOUSE, DEPARTMENT OF PARKS, SEATTLE, WASHINGTON

Note special compartment and toilets for boys; also double sets of toilets for both bathers and non-bathers. Bathers must pass under showers to reach the beach. The report to be found on Page 301 contains information regarding construction and maintenance.

BATHING BEACHES (Continued)	NEW BEDFORD, Massachusetts (Continued)	ORLANDO, Florida (Continued)	SEATTLE, Washington (Continued)
1. *Source of construction funds*	1. City appropriation	1. City appropriation	1. ———
2. *If receipts exceed expenditures, how is balance used?*	2. ———	2. ———	2. ———
3. *If deficit, how met?*	3. City provides deficit	3. ———	3. General tax fund
4. *Provision for depreciation*	4. None	4. ———	4. None
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Supervisor—13 hrs., $40 per wk., general manager Cashier—8 hrs., $21 per wk., sells tickets Life guards (3)—8 hrs., $31.50 per wk., also clean beach Women attendants (3)—$21 per wk. Men attendants (4)—$28 per wk. Police (2)—8 hrs., $4 per day	Supervisor—2 to 10 p.m., $26 per wk., charge of concession and suits Life guard—2 to 10 p.m., $24.50 per wk., cares for beach, (extra life guard Thursday and Sunday, $2 per day) Attendant—11 a.m.—11 p.m., $14 per wk., cleans bath house	Supervisor—9 hrs., $150 per mo., manager Cashier—8 hrs., $3.20 per day, sells tickets Life guards (3)—9 hrs., $115—$125 per mo. Attendants (3)—8 hrs., $2 per day, issue bags, lockers and suits Matron—8 hrs., $2.20 per day, in charge of women's section
1. *Fees charged—admission, suits, towels, etc.*	1. Suit 10c, towel 5c, box 10c	1. Suit and towel—adults 25c; suit—children (under 16) 15c; towel—children (under 16) 5c	1. Adults—suit, towel, locker....35c Adults—suit, towel, bag.....25c Adults and children—locker, towel .....15c Adults—bag, towel.....10c Adults—bag ..... 5c Children—suit, towel, locker..20c Children—bag, towel..... 5c Children—bag .....free
2. *Suits supplied all bathers?*	2. No	2. No	2. Yes
3. *Suits and towels laundered at beach?*	3. No	3. No	3. Central laundry plant
4. *Method and frequency of cleaning beach*	4. Beach raked and board walk washed daily	4. Pick up continuously	4. Daily
1. *Time limit for bathers?*	1. No time limit	1. No time limit	1. No time limit
2. *Hours open*	2. 9 a.m.—10 p.m.	2. 2—10 p.m.; holidays 10 a.m. to 10 p.m.	2. 10 a.m. to dark
3. *Days per week*	3. Seven days per week	3. Seven days per week	3. Seven days per week
4. *Length of season*	4. Thirteen to fifteen weeks	4. April 15th—Sept. 22nd, 1928	4. May 15th—Sept. 1st
5. *Attendance*	5. 1925 (15 wks.) 65,107 1926 (14 wks.) 66,039 1927 (14 wks.) 62,118 1928 (15 wks.) 108,195	5. 1928 *Spectators* *Bathers* April ..... 2,030 1,214 May ..... 7,320 5,815 June .....12,805 13,515 July .....16,938 14,070 August ..... 8,375 11,244 September .. 4,862 8,981 TOTAL ..52,330 54,839 1927 .....65,249 60,875	5. Not available
FINANCIAL STATEMENT *Expenditures*	1927 Payroll ..... $7,150.87 Light and power..... 62.24 Water ..... 180.38 Supplies (incl. suits and towels) ..... 1,284.14 Telephone ..... 55.21 Advertising ..... 136.97 Automobile hire ..... 161.41 Laundry ..... 310.44 TOTAL ..... $9,341.66 1926—TOTAL .....$12,782.89 1925—TOTAL 12,315.06	1928 Refreshment supplies .....$ 811.00 Salaries ..... 1,412.37 Laundry (suit 4c, towel 2c) 170.27 Supplies ..... 1,065.14 TOTAL .....$3,458.78 1927—TOTAL $1,494.45	Payroll .....$4,000.00 Light and power..... 20.00 Water ..... 6.00 Purification (estimated)... 1,000.00 Equipment ..... 500.00 Supplies ..... 600.00 Miscellaneous ..... 400.00 TOTAL $6,526.00
Receipts	1927 Fees from suits, towels & checking ..... $3,053.90 Concession privilege ..... 430.00 TOTAL ..... $3,483.90 1926—TOTAL ..... $3,667.15 1925—TOTAL 3,841.40	1928 Refreshments .....$1,045.70 Fees from suits and towels 443.70 Bath checks ..... 394.60 Sale of supplies ..... 50.85 Miscellaneous ..... 5.13 TOTAL .....$1,939.98 1927—TOTAL $1,078.77	TOTAL $2,000.00

BATHING BEACHES DESCRIPTION	SPRINGFIELD, Massachusetts	SPRINGFIELD, Massachusetts	ST. PAUL, Minnesota
1. *Name of beach*	1. Five Mile Pond	1. Water Shop Beach	1. Phalen Beach
2. *Location*	2. Pond	2. ———	2. Phalen Park
3. *Year established*	3. 1922	3. 1920	3. 1916
1. *Length*	1. 225′	1. 225′	1. ———
2. *Width*	2 90′ in center, 20′ at ends	2. 60′	2. ———
3. *Kind of surface*	3. Sand (filled in)	3. Sand	3. ———
4. *General contour*	4. Semicircular; 5′ deep 90′ from shore, increasing to 8′ and 12′ depths	4. ———	4. ———
5. *If enclosed, dimensions and describe*	5. Bath house in center and wings on sides form enclosure	5. Not enclosed	5. Not enclosed
1. *Disinfection of water—method and frequency of application*	1. None; water from springs	1. None	1. None
2. *Beach lights—location, type, voltage*	2. Not lighted	2. Not lighted	2. Six arc lights
Beach Facilities	Rubber on each side of bath house Refreshment facilities Two floats (at 6′—8′ depth) made of 1¾″ x 6″ planks for floor, 2″ x 12″ planks on sides; supported by barrels and anchored from center (single anchor considered safer for bathers) Diving board on each float Foot bath for bathers entering dressing rooms Life guard platform	Drinking fountain in front of bath house Private concession outside of beach area Two floats, one at each outer corner of swimming area; supported by 8 barrels under each; anchored by large concrete block Diving board on each float Caged area 50′ x 50′ for beginners	Drinking fountain near bath house Refreshment facilities Two diving towers—20′ and 12′ high Diving boards Two water slides Two children's water slides
BATH HOUSE			
1. *Outside dimensions*	1. Men's section—116′ x 48′ Women's section—116′ x 48′	1. 98′ x 24′	1. ———
2. *Construction materials*	2. Outside walls—siding on 2″ x 4″ uprights Roof—3 ply roofing on ⅞″ MTCH roofers Lockers—MTCH sheathing on 2″ x 4″	2. Foundation—chestnut posts Floor—1″ x 6″ boards Roof—shingles	2. Brick and stucco
3. *Facilities completely enclosed within building?*	3. Yes	3. Yes	3. Yes; large building
1. *Provision for: (dimensions)* *Men and boys* *Women and girls*	1. Men—45′ x 40′, boys—45′ x 8′; women and girls 60	1. Men—42′ x 24′; boys—18′ x 14′; women and girls—24′ x 20′	1. Men 928; boys 416; women and girls 1,146
2. *Basket, bag, or locker system?*	2. Lockers (frame compartments)	2. Pigeon holes	2. Locker
Number of *Dressing rooms*	Dressing rooms, men 112, boys 1, women and girls 60		Dressing rooms, 66
Dressing booths		Dressing booths, women 6	Dressing booths, 12
Lockers		Pigeon holes, men 239, women 72	Lockers, 2,490
Showers	Showers, men 1, women 1	Showers, 1 each	Showers, 2
Baskets			
Toilets	Toilets, men 2, women 1 One toilet each for men and women helpers	Toilets, 4	Toilets, 18
Urinals	Urinals, 3	Urinals, 1	Urinals, 9
Other bath house facilities	Two cashier rooms—7′ x 7′ each Laundry room Open air drying room Wash room Two life guard rooms—4′ x 4′ each Two toilets	Attendants' room used also for first aid room and guards' dressing room	Manager's office Lady attendant's room Hospital room—beds, toilets, medicine chest and utensils Basement for soiled suits and towels
1. *Heater provided for shower baths?*	1. No	1. No	1. No
2. *Location and voltage of lights in bath house*	2. None	2. None	2. ———
3. *Life saving equipment provided*	3. Lung motor, boat, irons, physician on call, first aid kit	3. First aid equipment, physician on call, pulmotor, two life boats, life saver ring	3. Boats, ropes, cot, set of dragging hooks
BEACH AND BATH HOUSE *Beach Construction Cost*	Excavation and grading....$1,600.00 Floats (2) ..... 120.00 Boom, installed ..... 75.00 TOTAL $1,795.00		Excavation and grading— Material .....$1,000 Labor ..... 2,000 $3,000.00 Fencing— Material .....$100 Labor ..... 100 200.00 Lighting— Material .....$200 Labor ..... 100 300.00 Diving towers— Material .....$250 Labor ..... 150 400.00 Boats (each)..... 80.00 Floats— Material .....$200 Labor ..... 100 300.00 TOTAL $4,280.00
Bath House Construction Cost	General construction (incl. lockers) Material .....$1,512 Labor ..... 3,168 $4,680.00 Plumbing (incl. showers) Material .....$350 Labor ..... 250 600.00 TOTAL $5,280.00	General construction— Material.....$2,715.69 Labor ..... 869.31 $3,585.00 TOTAL .....$3,585.00 (Does not include cost of lockers or plumbing, but latter amount not large)	General construction.....$16,000.00 Plumbing (incl. showers)— Material .....$600 Labor ..... 500 1,100.00 Lighting— Material .....$300 Labor ..... 300 600.00 Lockers— Material .....$4,000 Labor .....2,000 6,000.00 Miscellaneous equipment.. 4,000.00 TOTAL .....$27,700.00 (Above figures estimates)

BATHING BEACHES (Continued)	SPRINGFIELD, Massachusetts (Continued)	SPRINGFIELD, Massachusetts (Continued)	ST. PAUL, Minnesota (Continued)
1. *Source of construction funds* 2. *If receipts exceed expenditures, how is balance used?* 3. *If deficit, how met?* 4. *Provision for depreciation*	1. Appropriation from park funds 2. Receipts credited to Park Department sinking fund 3. ——— 4. ———	1. Appropriation from park funds 2. Receipts credited to Park Department sinking fund 3. ——— 4. ———	1. ——— 2. ——— 3. From refreshment stands elsewhere 4. None
OPERATION AND MAINTENANCE *Workers—hours, salary, duties*	Man cashier—8 to 10 hrs., $140 per mo., responsible for b.h., cashier on men's side Woman cashier—6 to 8 hrs., $75 per mo., on women's side Life guards (4)—approx. 6 hrs., $100 per mo., also supervise and clean beach Women instructors (2)—6 to 8 hrs., $75 per mo. Attendant—8 hrs., $35 per wk., helps in b.h. and on grounds	Life guards (4)—8 hrs., $100 per mo., also clean beach Woman guard and instructor—6 hrs., $75 per mo. Attendant—10 hrs., $140 per mo., checks clothing	Supervisor—8 hrs., $131.49 per mo., general supervision Cashier—8 hrs. $75 per mo. Life guards (4)—8 hrs., $105 to $119.88 per mo. Attendants (4)—8 hrs., $75 to $100 per mo., wait on patrons, clean, repair
1. *Fees charged—admission, suits, towels, etc.* 2. *Suits supplied all bathers?* 3. *Suits and towels laundered at beach?* 4. *Method and frequency of cleaning beach*	1. Suit 15c, towel 5c. locker 10c per hr. 2. No 3. Suits only 4. Rake beach and collect refuse	1. Suit 15c, towel 5c, locker 10c per hr. 2. No 3. Suits only 4. Rake beach and collect refuse	1. Suit 10c, towel 5c, locker 5c, checking 5c 2. Yes 3. No 4. Cleaned daily
1. *Time limit for bathers?* 2. *Hours open* 3. *Days per week* 4. *Length of season* 5. *Attendance*	1. No time limit 2. 10 a.m.—8 p.m. 3. Seven days per week 4. June 15th—Sept. 15th 5. Estimated attendance Sundays and special days—3,000	1. No time limit 2. 10 a.m.—8 p.m. 3. Seven days per week 4. June 20th—Sept. 15th 5. ———	1. No time limit 2. 12—9 p.m. weekdays; 10 a.m.—9 p.m. Sundays and holidays 3. Seven days per week 4. Three months 5. 1928 Paid .....69,883 Children (free).....31,200 Free, not thru b.h.....80,870 (estimated) TOTAL 181,953
FINANCIAL STATEMENT *Expenditures*	Payroll .....$2,715.00 Supplies ..... 131.50 TOTAL $2,846.50	Payroll ..... $1,815.00 Supplies ..... 131.50 TOTAL $1,946.50	1928 Payroll .....$3,458.08 Laundry ..... 394.17 Equipment ..... 1,731.66 Supplies ..... 241.04 Miscellaneous ..... 220.00 Overhead ..... 303.09 TOTAL $6,348.04
Receipts	Fees from suits, towels, and lockers .....$1,066.66 TOTAL $1,066.66	Fees from suits, towels, and lockers .....$533.34 TOTAL $533.34	1928 Fees from suits and towels $6,198.28 TOTAL $6,198.28

CABRILLO BEACH BOAT HOUSE, LOS ANGELES, CALIFORNIA
(See report of beach on Page 299)

Wading Pools

Of the eighteen wading pools listed, the majority are located on or near playgrounds or other play areas where they serve a maximum of children at a minimum cost for supervision. Most of them have been built since 1925.

Six of the pools are circular, nine are oval, and three are rectangular in shape. There are marked variations in size due somewhat to the fact that several are really wading-swimming pools. In Aurora, Illinois; Carroll Park, Baltimore, Maryland; Cincinnati, Ohio; Oak Park, Illinois, and Springfield, Massachusetts, are pools of this type, all of which have maximum depths of 3′ or more. Not all park and recreation authorities favor the wading-swimming pool because of the added problems of sanitation and supervision. Pools of this type require guards at all times as well as facilities for the changing of clothes. These special factors are particularly apparent in the reports of the wading-swimming pools located in Carroll Park, Baltimore, and on the Ziegler Playground, Cincinnati. The Sawtelle Playground wading pool, Los Angeles, a plan of which will be found on Page 310, illustrates a type of pool designed exclusively for wading.

Walls and bottoms of practically all the wading pools are of concrete, reenforced in all except those located in mild climates. Thickness of walls varies from 6″-10″, those for the wading-swimming pools being of greatest width. The bottoms of all the pools except two are likewise of concrete, the usual thickness being 4″-6″, although those for the deeper pools are more substantial. While sand or other natural bottoms may be more interesting, cleaning is more difficult and sanitary conditions less satisfactory. Half of the pools have curbs approximately 6″ high and 8″ thick. One pool only is without a surrounding walk. Usually such walks are of concrete and vary in width from 3′-10′. They slope to the outer edge, thus preventing surface water from draining into the pool as well as keeping the area immediately surrounding it from becoming muddy. The pool walk at Tulsa, Oklahoma, drains to the scum gutter. The Ziegler Playground pool, Cincinnati, also has a scum gutter but the slope is to special drains at the outer edge. Such precautions are particularly essential in the case of pools deep enough for bathing and swimming.

As the reports indicate, the ground beneath the pools is of a substantial nature, being of clay or of a clay and gravel mixture; otherwise special fill has been provided to form a solid base. For a number, natural drainage has been considered adequate; others have artificial drainage consisting of cinders, broken stone, or tile. Because of differing conditions of soil and climate the question of proper drainage is one requiring the services of an engineer experienced in construction of outdoor pools. The same is true of the various problems relating to water supply—number, size and location of inlets, outlets, overflows, etc. For the particular wading pools listed, there is usually one inlet placed at the end of the pool. Pools providing sufficient water for swimming or bathing have two or three to care for the larger capacity. An overflow is provided in most instances. In three pools there is a scum gutter surrounding them; in others the overflow is provided by means of a single outlet through the pool wall or by an upright pipe from the bottom of the pool either at the center or end. Where the overflow is provided by a single outlet, it is preferable for purposes of removing surface dirt and impurities to place it at the end of the pool opposite the inlet, as in the case of the Underhill Playground pool, Spokane, Washington.

In connection with seven of the wading pools dressing accommodations are provided, for the most part in nearby shelter houses. Showers and lockers are available for the wading-swimming pools at Carroll Park, Baltimore, and Ziegler Playground, Cincinnati. It will be noted that Peoria, Illinois, is planning similar accommodations. A majority of all the pools permit bathing but require bathing suits. Under the special conditions mentioned, adults are allowed to bathe and swim in the pools at Carroll Park, Baltimore, and Ziegler Playground, Cincinnati. Usually sand boxes are located near or on the same area as the pools and in a number of cases pergolas have been erected.

The various problems of excavation, drainage and construction, together with statements of costs are discussed at length in the *Park Manual*, Volume One, Pages 342-373. These pages contain also plans and illustrations of wading pools to be found in other cities.

For all wading pools except one, total or itemized construction cost figures are available. Some of the statements are quite complete and present a wide range in cost. Obviously the factors accounting for these variations include size, type, method of construction and special facilities provided. Attention is drawn to the several instances

in which construction work was done by park labor. These are mentioned in the footnotes accompanying the individual construction cost statements.

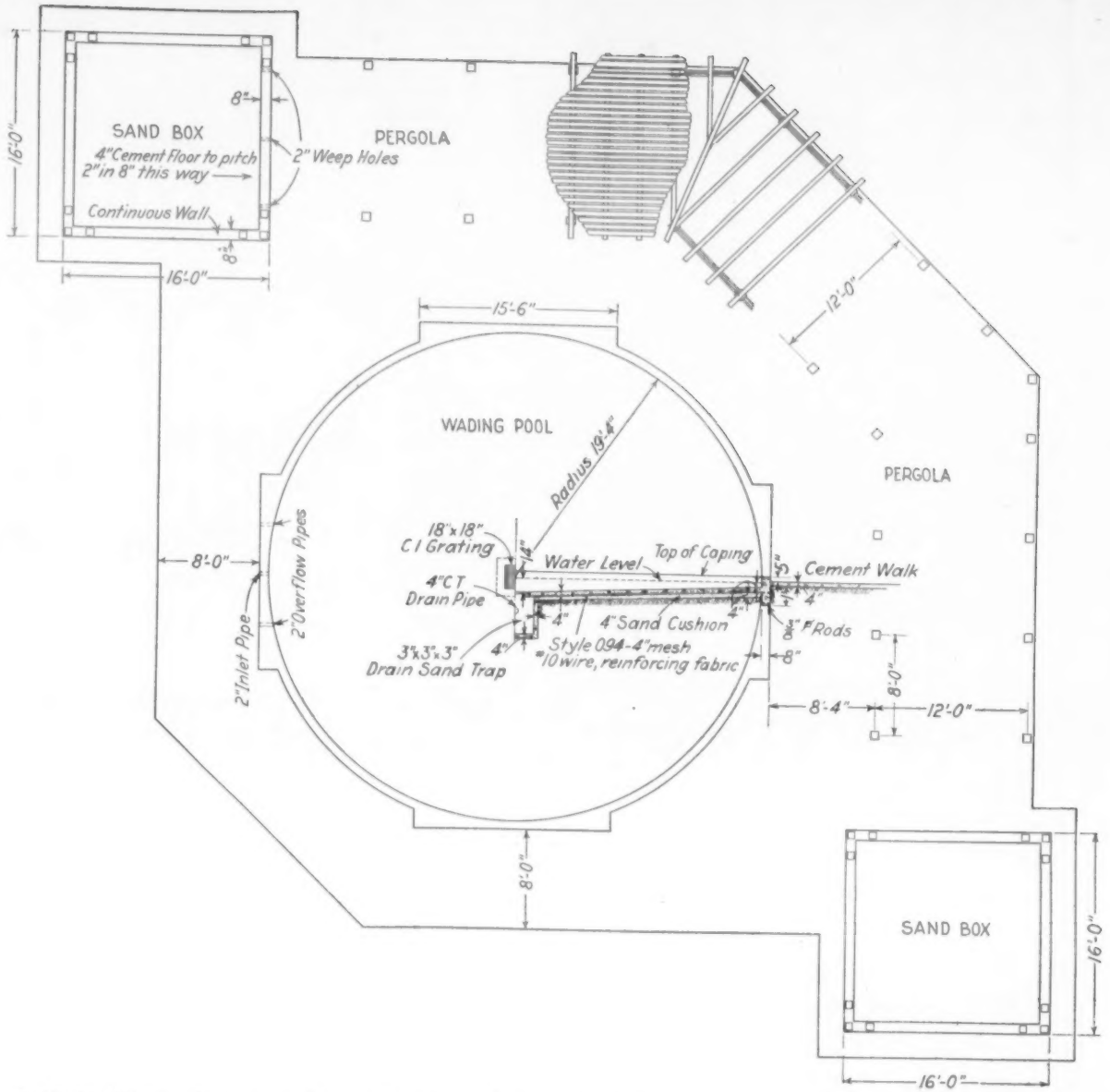
It is of interest also to note the practice followed in the various cities with respect to changing the water and cleaning the pools. In eleven instances pools are emptied and cleaned daily. In the remainder, with two exceptions, the water is changed from one to three times weekly. Several either use disinfectants or provide a continuous flow of water.

Supervision of wading pools by playground leaders is the predominating practice. Occasionally a special supervisor—man, matron or policeman—is employed. Usually the necessary caretaking service, including the changing of water, cleaning and general maintenance, is provided by the park attendant or regular playground caretaker. This particular service constitutes the principal item of operating expense. Only the weekly or monthly salary rates for playground leaders are available. It is apparently impossible to prorate the operating cost chargeable to pools for supervision by such playground workers. Furthermore, it will be observed that in numerous instances items are not segregated from the general operating and maintenance accounts for park and playground systems. Almost invariably no definite record has been kept of the number of children served by the various pools.

COMBINED WADING AND SWIMMING POOL, PUBLIC RECREATION COMMISSION, CINCINNATI, OHIO
Note deep section designed for bathing and fence separating it from the wading area. See report of its construction and operation on Page 309.

WADING POOLS	AURORA, Illinois	AURORA, Illinois	BALTIMORE, Maryland
DESCRIPTION			
1. *In park or playground?*	1. Copley Playground No. 1	1. Copley Playground No. 2	1. Carroll Park
2. *Location, with reference to other facilities*	2. In front of shelter house	2. At foot-hill from other facilities	2. Adjacent to playground and play field
3. *Date built*	3. 1927	3. 1927	3. 1925
1. *Shape of pool*	1. Rectangular	1. Elliptical	1. Elliptical
2. *Capacity*	2. ———	2. ———	2. ———
3. *Dimensions* (a) *size* (b) *depth (variations)*	3. (a) 42′ x 26′ (b) 1½′—4½′ (end to end)	3. (a) 45′ x 27′ (b) 1½′—4½′ at point 8′ from end, thence to 4′ at end	3. (a) 200′ x 76′ 8″ (b) 2″—60″
CONSTRUCTION			
1. *Kind of material used*	1. Concrete	1. Concrete	1. Concrete
2. *Thickness of side walls How reenforced?*	2. 10″; ⅝″ rods 6″ apart vertical and horizontal, forming network within 6″ of top	2. 10″; ⅝″ rods 6″ apart vertical and horizontal forming network within 6″ of top	2. 8″; ⅞″ iron rods, 2″ mesh
3. *Thickness of bottom. How reenforced?*	3. 12″—15″; reenforced as walls	3. 10″; reenforced as walls	3. 4″; ⅞″ iron rods, 2″ mesh
4. *Concrete colored?*	4. No; painted sky blue	4. No	4. No
1. *Curb around pool? Height, thickness*	1. No	1. No	1. Yes; 7″ high, 8″ thick
2. *Walk around pool? Width, material*	2. Yes; 3′ wide at sides, 20′ wide at ends; stone slabs 2″ thick	2. Yes; 3′ wide; stone slabs	2. Yes; ¾ of way, 5′ wide, cinders
3. *Walk slope to pool or outer edge?*	3. To outer edge	3. To outer edge	3. To outer edge
4. *If to drains, location, type, size*	4. ———	4. ———	4. Walk surface slightly elevated; natural drainage sufficient. (Between walk and pool are 2 concrete roller skating courses—inner course (15′ wide) for adults, outer course (20′ wide) for children, 8″ concrete curbs on sides of each)
1. *Nature of ground under pool*	1. Old cellar, filled with cinders to required grade	1. Slate rock	1. Clay and gravel
2. *How drained under pool?*	2. Natural drainage	2. No tile drains	2. No drainage
3. *Pool area enclosed?*	3. No	3. No	3. Yes; 2 sides and 1 end, iron picket fence 5′ high; other end joins playground
1. *City water supply used?*	1. Yes	1. Yes	1. Yes
2. *Inlets and outlets—number, size, type, location*	2. 1—2″ inlet pipe at corner of pool; 1—6″ drain pipe at same corner as inlet	2. 1—1½″ steel pipe inlet at shallow end near top of wall, also ⅝″ fountain inlet in center; 1—6″ grate covered drain at maximum depth	2. 2—3″ inlet pipes at outer edge of wading area, also 10 spray inlets distributed at edge of wading area; 2 large drains, 12″ square, in center and bottom of pool, connected with 8″ terra cotta pipe line to sewers
1. *Overflow*	1. 4″ pipe at deep end	1. 4″ pipe leading, as does drain, down hillside; not connected to sewer	1. 2—2″ pipes on one side of pool at water's edge
2. *Describe sand traps*	2. ———	2. ———	2. 12″ x 12″ drains screened with metal plate at pool bottom, screen also over opening to main drain below
3. *Describe shut off valve box*	3. Outside pool wall where inlet pipe enters	3. Below surface at edge of walk	3. Shut off valve in concrete box on side and just outside iron fence
1. *Facilities for dressing and checking clothing?*	1. No	1. No	1. At field house; suits rented at 5c per hour, including towel and locker. Locker alone rented at same rate
2. *Sand boxes adjacent to pool? Location, size, construction*	2. Sand play area (oval shape) near one side of pool	2. No	2. Sand box 20′ x 12′ with concrete curb, about 200′ from pool
3. *Pergola adjacent to pool? Location, size, construction*	3. No	3. No	3. No (24—300 watt lights on iron posts 10′ high around edges of pool and skating courses)
CONSTRUCTION COST (*Items—labor, material, total*)	Grading, drainage and concrete work .....$1,167.00 Plumbing ..... 370.00 TOTAL $1,537.00	Excavation, grading, and drainage .....$ 150.00 Concrete work ..... 1,131.25 Plumbing ..... 435.00 TOTAL $1,716.25	TOTAL $38,324.03 (Construction and maintenance work done by Park Department; individual cost items not segregated in park accounts)
OPERATION			
1. *How often is water changed?*	1. Daily	1. Daily	1. Daily
2. *Time required to empty*	2. 30 minutes	2. 30 minutes; not always filled to maximum depth	2. Three hours
3. *Time required to fill*	3. 2½ hours	3. Two hours	3. Three hours
4. *Water treated with disinfectant?*	4. No	4. No	4. No; chlorine applied to bottom of pool when cleaned
5. *How often is pool cleaned?*	5. Daily	5. Daily	5. Scrubbed daily
1. *Length of season*	1. Twelve weeks	1. Twelve weeks	1. Twelve weeks
2. *Limit on ages of children using pool?*	2. Under 16	2. Under 16	2. No limit on wading but those under 12 excluded from deep section unless able to swim
3. *Bathing permitted? Restrictions*	3. Yes; full bathing suits	3. Yes; full bathing suits	3. Yes
4. *Special pool supervisor?*	4. No; playground leader gives supervision needed	4. No; playground leader gives supervision needed	4. Two life guards
5. *Who takes care of maintenance, cleaning, changing water?*	5. Playground caretaker	5. Playground caretaker	5. Park caretaker; at times 2 or 3 workers are busy changing water and cleaning pool, averages full time of one man
OPERATING COST (*Wages, water supply, disinfectants*)	Caretaker, $90 per season, 15 hours per week Play leader, $72 per season Total (estimate) $162 (Water supply free, but charge to be made in future.)	Caretaker, $90 per season Play leader, $72 per season Total (estimate) $162 (Water supply free, but charge to be made in future)	Two guards at 35c per hr., 8 hrs. per day—$20 per wk. One caretaker full time at 40c per hr., 10-12 hrs. per day—$28-$30 per wk. (One day off weekly if possible)
ATTENDANCE			
1. *Number of children using pool per season*	1. No record of attendance, but in 1926—140; 1927—172 were taught to swim	1. No record kept	1. No attendance record except for those who rent suits or lockers
2. *How many can use pool at one time?*	2. 100—125.	2. About 75—100	2. 1,500—2,000

WADING POOLS	BALTIMORE, Maryland	BIRMINGHAM, Alabama	CINCINNATI, Ohio
DESCRIPTION			
1. *In park or playground?*	1. Patterson Park	1. Jordon Park	1. Ziegler Playground
2. *Location, with reference to other facilities*	2. Apart from other facilities	2. Near sand boxes and children's playground	2. Near shelter house
3. *Date built*	3. 1925	3. 1928	3. 1928
1. *Shape of pool*	1. Elliptical	1. Oval	1. Rectangular
2. *Capacity*	2. ———	2. 16,695 gallons	2. Two sections— wading — 5,885 gallons swimming—43,212 gallons
3. *Dimensions* (a) *size* (b) *depth (variations)*	3. (a) 120′ x 78′ (b) 12″—20″	3. (a) 55′ long 30′ wide 15′ radius (b) 6″—2′	3. (a) wading —35′ x 20′ swimming—60′ x 35′ (b) wading—9″—1′ 6″ swimming—2′ 6″—3′ 8″ (Shallow and deep sections separated by concrete wall on which is galv. steel mesh fence)
CONSTRUCTION			
1. *Kind of material used*	1. Concrete	1. Concrete	1. Concrete, reenforced
2. *Thickness of side walls* *How reenforced?*	2. 8″; ⅞″ iron rods	2. 8″; no reenforcing	2. 10″ on 24″ footing
3. *Thickness of bottom* *How reenforced?*	3. Clay bottom, 1′ thick rolled, 1′ of sand for surface	3. 4″; no reenforcing	3. 5″
4. *Concrete colored?*	4. ———	4. No	4. ———
1. *Curb around pool?* *Height, thickness*	1. Yes; 8″ high, 8″ thick; also a 2nd curb 7″ high, 8″ thick at inner edge of cinder walk; between curbs is roller skating area 23′ 9″ wide. (Skating in spring and fall only)	1. Yes; 6″ high, 8″ thick	1. No
2. *Walk around pool?* *Width, material*	2. Yes; 10′ wide, 1″ lower than curb, cinders	2. Yes; 8′ wide	2. Yes, 10′ wide, concrete
3. *Walk slope to pool or outer edge?*	3. To outer edge	3. To outer edge	3. To outer edge
4. *If to drains, location, type, size*	4. Skating area slopes to and drains into pool through 4 openings in pool curb	4. ———	4. To 8 sidewalk drains
1. *Nature of ground under pool*	1. Gravel and clay	1. Clay	1. ———
2. *How drained under pool?*	2. No drainage	2. ———	2. ———
3. *Pool area enclosed?*	3. No	3. ———	3. Within playground, which is enclosed with 6′ ornamental iron fence
1. *City water supply used?*	1. Yes	1. Yes	1. Yes
2. *Inlets and outlets—number, size, type, location*	2. 1—3″ iron inlet pipe through fountain at center of pool; 2—3″ outlet pipes—1 at side through curb, other in pool bottom near fountain	2. 1—2″ galv. pipe inlet at shallow end; 1—4″ iron pipe drain at maximum depth	2. 3—2½″ galv. pipe inlets with pressure nozzles; all on one side of pool, 2 in swimming section, one in wading section; 1 outlet with 6″ Josam Mfg. Co. No. 501 floor drain. Sewer lead is 6″ class "C" cast iron pipe. 2—4″ openings at base of wall separating swimming and wading sections.
1. *Overflow*	1. 2—2″ iron pipes at sides through pool curb	1. ———	1. Scum gutter surrounds pool
2. *Describe sand traps*	2. None; perforated drains, screen below	2. None	2. ———
3. *Describe shut off valve box*	3. Under ground 5′ from edge of cinder walk	3. 4″ gate valve in 2′ sq. box 2½′ below surface at shallow end controls inlet; similar box at deep end controls outlet	3. ———
1. *Facilities for dressing and checking clothing?*	1. No	1. No	1. Yes; in shelter house, 2 dressing rooms, 20 lockers, 3 showers
2. *Sand boxes adjacent to pool? Location, size, construction*	2. No	2. Nearby	2. ———
3. *Pergola adjacent to pool? Location, size, construction*	3. No; benches along outer edge of cinder walk at one end and part of one side of pool (4—250 watt lights on iron posts 10′ high on sides and ends of pool)	3. No	3. ———
CONSTRUCTION COST *(Items—labor, material, total)*	TOTAL $11,917.85 (Construction and maintenance work done by Park Department; individual cost items not segregated in park accounts)	Excavation ..... $100.00 Grading and drainage Labor .....$24.00 Material ..... 30.00 54.00 Concrete work Labor .....$243.00 Material ..... 326.00 569.00 Plumbing Labor .....$60.00 Material ..... 75.00 135.00 TOTAL $858.00	Excavation and grading...$ 896.20 Concrete work ..... 3,432.06 Plumbing and water supply 755.00 Purification equipment ... 650.00 Fence ..... 113.00 Engineering service ..... 300.00 TOTAL $6,146.26
OPERATION			
1. *How often is water changed?*	1. Yearly	1. Two or three times weekly	1. Daily
2. *Time required to empty*	2. Two hours	2. Four hours	2. Two hours
3. *Time required to fill*	3. Four hours	3. Six hours	3. Two hours
4. *Water treated with disinfectant?*	4. No	4. No	4. No; continuous water flow when bathing load extra heavy
5. *How often is pool cleaned?*	5. Only when emptied and new sand added	5. When drained	5. ———
1. *Length of season*	1. 12—13 weeks	1. Fifteen weeks	1. 66 days
2. *Limit on ages of children using pool?*	2. 12—14 years	2. No	2. Children under 16 until 5:30 p. m., adults until dark
3. *Bathing permitted? Restrictions*	3. No	3. Yes. No restrictions	3. Yes
4. *Special pool supervisor?*	4. No; patrolman acts as supervisor	4. No	4. No; playground leaders in charge, swimming instructor certain days only
5. *Who takes care of maintenance, cleaning, changing water?*	5. Park attendant	5. Park caretaker	5. ———
OPERATING COST *(Wages, water supply, disinfectants)*	Negligible; attendant spends only a few hours a season on pool	Cost items chargeable to pool operation not segregated in park maintenance accounts	Swimming instructor $6 per day Playground leaders (2) at $4 and $5 per day, 8 hours per day each worker (Pool just built; cost items not fully determined)
ATTENDANCE			
1. *Number of children using pool per season*	1. No record kept; estimate 15,000 annually	1. No record kept	1. Records not yet available
2. *How many can use pool at one time?*	2. Approx. 1,000	2. ———	2. ———



PLAN OF WADING POOL AND PERGOLA, SAWTELLE PLAYGROUND, DEPARTMENT OF PLAYGROUND AND RECREATION, LOS ANGELES, CALIFORNIA

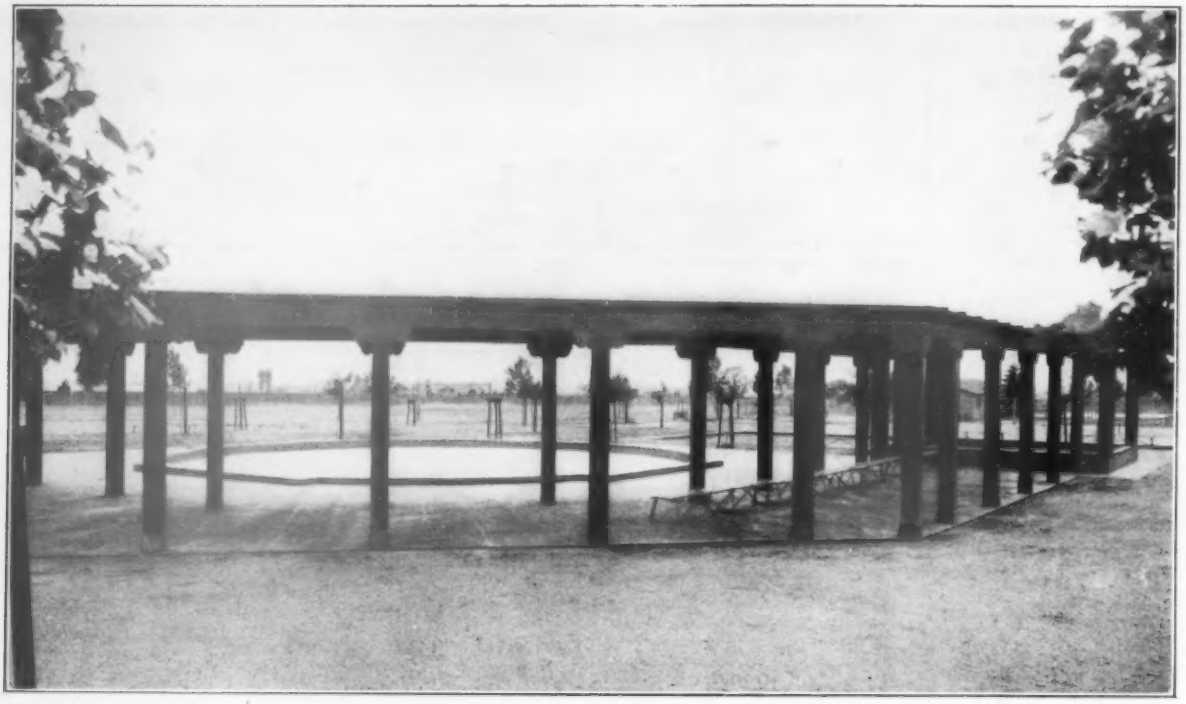
(See illustration on Page 314 and report on Page 311)

(See illustration on Page 314 and report on Page 311)

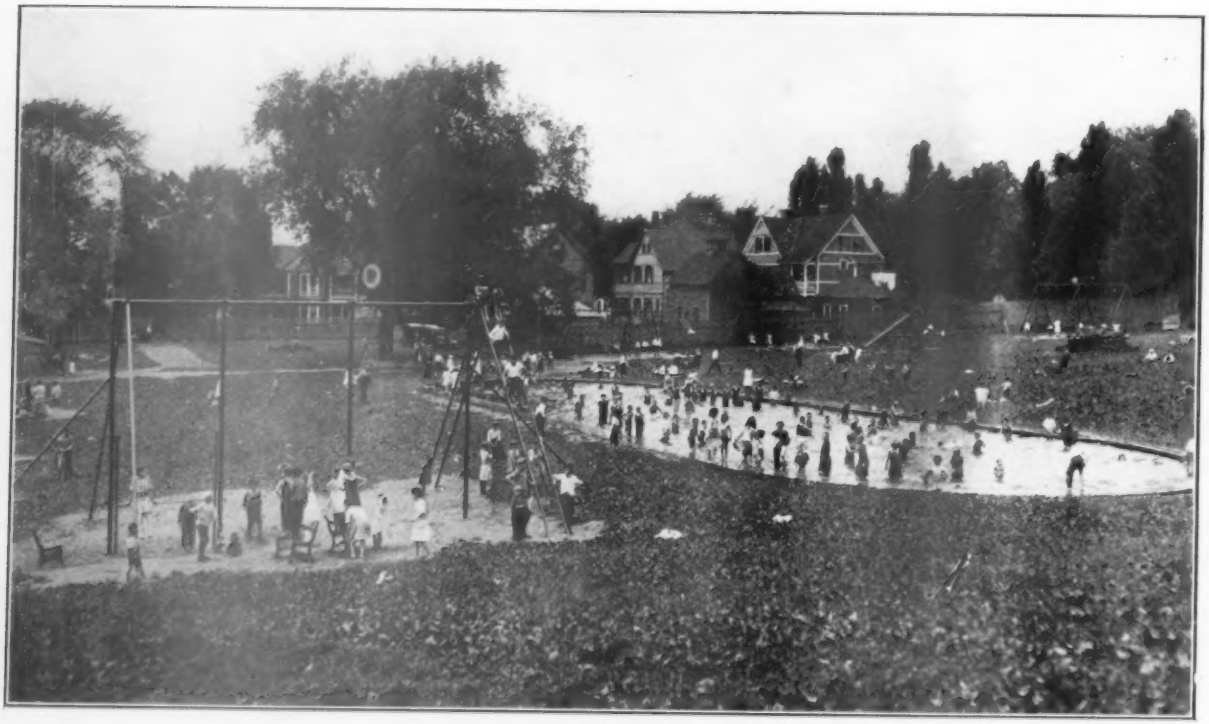
WADING POOLS	HARTFORD, Connecticut	KEWANEE, Illinois	LOS ANGELES, California
DESCRIPTION			
1. *In park or playground?*	1. Pope Park	1. Liberty Park Playground	1. Sawtelle Playground
2. *Location, with reference to other facilities*	2. Near playground equipment	2. ———	2. Corner of playground
3. *Date built*	3. 1928	3. 1925	3. 1928
1. *Shape of pool*	1. Circular	1. Circular	1. Circular
2. *Capacity*	2. ———	2. 10,600 gallons	2. ———
3. *Dimensions* (a) *size* (b) *depth (variations)*	3. (a) 55′ radius (b) 6″ at edge, 2′6″ at center	3. (a) ——— (b) 12″ at edge 18″ in center	3. (a) 38′ 8″ diameter (b) 4″—14″
CONSTRUCTION			
1. *Kind of material used*	1. Concrete walls, bottom stone, tarvia and sand	1. Concrete	1. Concrete
2. *Thickness of side walls How reenforced?*	2. 7″; no reenforcing	2. ———	2. 8″; ¾″ steel rods
3. *Thickness of bottom How reenforced?*	3. 6″; no reenforcing	3. ———	3. 4″; No. 10 wire fabric
4. *Concrete colored?*	4. No	4. No	4. Yes; ½ lb. lamp black to sack of cement for finish
1. *Curb around pool? Height, thickness*	1. No	1. No	1. Yes; 5″ high, 8″ thick
2. *Walk around pool? Width, material*	2. Yes; 4′ wide, concrete	2. Yes; 4′ wide, concrete	2. Yes; 8′ wide, cement
3. *Walk slope to pool or outer edge?*	3. To outer edge	3. To outer edge	3. To outer edge
4. *If to drains, location, type, size*	4. ———	4. No	4. ———
1. *Nature of ground under pool*	1. Hard clay	1. Clay	1. Sandy loam
2. *How drained under pool?*	2. 4″ tile encircles pool; one 6″ tile laid crosswise in 12″ of cinders and 2″ trap rock	2. Lateral drains from center of pool bottom to main	2. 4″ sand cushion under concrete
3. *Pool area enclosed?*	3. No	3. Yes, heavy ornamental mesh fence	3. No
1. *City water supply used?*	1. Yes	1. No; from Kewanee Boiler Co., private supply	1. Yes
2. *Inlets and outlets—number, size, type, location*	2. 2—1″ inlet pipes, opposite edges of pool; 1—6″ tile drain at center of pool	2. 1—1½″ galv. iron pipe inlet at side; 1—6″ galv. iron pipe drain at maximum depth	2. 1—2″ inlet pipe through curb; 1—4″ outlet pipe to sand trap at center of pool
1. *Overflow*	1. 6″ screened pipe in center of pool; unscrewed to drain pool	1. ———	1. 2—2″ overflow pipes through curb
2. *Describe sand traps*	2. None	2. ———	2. 3′ 3″ x 3′ 3″ at center of pool, 18″ x 18″ grating over trap
3. *Describe shut off valve box*	3. At edge of pool with hand shutoff to control inlets	3. In manhole 20′ from pool	3. Cement box 3′ x 3′ x 3′
1. *Facilities for dressing and checking clothing?*	1. No; provided by distant shelter	1. Yes; girls′ room 12′ x 4′; boys′ room 16′ x 4′; no checking facilities	1. No
2. *Sand boxes adjacent to pool? Location, size, construction*	2. Yes; 30′ from pool; wood construction, 15′ x 8′	2. Yes; sand court under shelter, 16′ x 16′	2. Two sand boxes at opposite ends of pergola
3. *Pergola adjacent to pool? Location, size, construction*	3. No	3. Yes; over sand court	3. Yes; half way around pool, 90′ long, 10′ 6″ wide
CONSTRUCTION COST (*Items—labor, material, total*)	TOTAL .....$4,000 (Construction work done by park labor, cost items are below normal)	Construction Pool and pergola .....$4,492.00 Sand court ..... 166.00 TOTAL $4,658.00	Excavation .....$ 106.00 Concrete work ..... 1,302.00 Plumbing and water supply 278.00 Sand boxes and pergola... 537.00 Other ..... 225.00 TOTAL .....$2,448.00 (All buildings and facilities for play and recreation purposes are designed and their construction supervised by the Division of Construction and Maintenance of the Playground and Recreation Department)
OPERATION			
1. *How often is water changed?*	1. Three times weekly	1. Daily	1. Daily
2. *Time required to empty*	2. Two hours	2. Drained late evening; filled following morning	2. Two hours
3. *Time required to fill*	3. Ten hours	3. ———	3. Three hours
4. *Water treated with disinfectant?*	4. No	4. No	4. Yes; chlorax applied twice daily
5. *How often is pool cleaned?*	5. When drained	5. Daily	5. Daily
1. *Length of season*	1. First season operating	1. Three months	1. Approx. 20 weeks
2. *Limit on ages of children using pool?*	2. Twelve years	2. Twelve years	2. Under 10 years
3. *Bathing permitted? Restrictions*	3. Yes	3. Yes; children only, bathing suits required	3. Yes; bathing suits only
4. *Special pool supervisor?*	4. Yes; man, 9 a.m.—8:30 p.m.; girl, 12 noon—6 p.m.	4. Yes; matron, full time during season, $18 per week	4. No
5. *Who takes care of maintenance, cleaning, changing water?*	5. Park men	5. Kewanee Boiler Co. pays man for necessary caretaking work daily	5. Caretaker
OPERATING COST (*Wages, water supply, disinfectants*)	Pool just opened; operating cost items not fully determined	Supervisor (matron) only charge to public funds; remaining operating expense met from private funds	Caretaker on playground—approx. $115 per month, spends ¼ of an hour per day on pool at $1.50 per day Water cost—5c per cubic foot (Items chargeable to pool not segregated)
ATTENDANCE			
1. *Number of children using pool per season*	1. No record yet	1. 1927—14,923 1928—14,587	1. No record kept
2. *How many can use pool at one time?*	2. Approximately 400	2. 25	2. Approx. 75

WADING POOLS	OAK PARK, Illinois	PEORIA, Illinois	PHILADELPHIA, Pennsylvania
DESCRIPTION			
1. *In park or playground?*	1. Eugene Field Playground	1. Bradley Park	1. Kingsessing Playfield
2. *Location, with reference to other facilities*	2. ———	2. Near playground	2. Near entrance to playground
3. *Date built*	3. 1927	3. ———	3. ———
1. *Shape of pool*	1. Oval	1. Pear shaped	1. Elliptical
2. *Capacity*	2. ———	2. ———	2. ———
3. *Dimensions* (a) *size* (b) *depth (variations)*	3. (a) 70′ x 40′ (b) 6″ at edge, 3′ at center	3. (a) 1,002′ circumference (b) 6″—2′ 8″	3. (a) 70′ x 30′ (b) 3″—15″
CONSTRUCTION			
1. *Kind of material used*	1. Concrete	1. Concrete, 4,000 sq. yds.	1. Concrete
2. *Thickness of side walls* *How reenforced?*	2. 6″; no reenforcing	2. 6″; ⅝″ bar around pool wall, No. 9 wire mesh	2. 6″; iron rods
3. *Thickness of bottom* *How reenforced?*	3. 6″; mesh reenforcement—40 lbs. per 100 sq. ft.	3. 5″; same reenforcing	3. 6″; iron rods
4. *Concrete colored?*	4. No	4. No	4. No.
1. *Curb around pool?* *Height, thickness*	1. No	1. No	1. Yes; 6″ high, 6″ thick
2. *Walk around pool?* *Width, material*	2. Yes; 5′ wide, concrete	2. Yes; 4′ wide, concrete	2. No
3. *Walk slope to pool or outer edge?*	3. To outer edge	3. To pool	3. ———
4. *If to drains, location, type, size*	4. ———	4. ———	4. ———
1. *Nature of ground under pool*	1. Gravel	1. Originally swamp	1. Sandy loam
2. *How drained under pool?*	2. 4″ tile herringbone arrangement; lateral leads 10′ apart drain into center lead to sewer	2. 2′—4′ gravel and sand fill under concrete bottom	2. Layer of cinders only
3. *Pool area enclosed?*	3. No	3. No	3. No
1. *City water supply used?*	1. Yes	1. Yes	1. Yes
2. *Inlets and outlets—number, size, type, location*	2. 1—2″ inlet pipe at pool end; 1—6″ overflow at end; 1—6″ drain vitrified clay pipe, at center bottom	2. 1—4″ inlet pipe at wide end of pool; 1—6″ cast iron outlet pipe near narrow end	2. 1—3″ iron pipe inlet at pool center extending above water level; 1—6″ iron pipe outlet at pool center
1. *Overflow*	1. 6″ vitrified clay pipe	1. Depressed curb at narrow end	1. 3″ upright pipe from pool bottom near one end
2. *Describe sand traps*	2. One under center drain, 2′ deep, concrete with 6″ walls; catch basin at pool end, 5′ deep, diameter 2′ 6″, 8″ brick walls	2. ———	2. Wooden box 12″ x 12″ x 20″ deep outside at edge of pool
3. *Describe shut off valve box*	3. Valve vault 7′ deep, diameter 3′, 8″ brick walls	3. ———	3. Frame square 2′ x 2′ x 30″ deep at rear of pergola
1. *Facilities for dressing and checking clothing?*	1. No: some use shelter	1. No; now planning for shelter and dressing room	1. No
2. *Sand boxes adjacent to pool? Location, size, construction*	2. No; at opposite end of playground	2. No	2. Sand court between pool and pergola foundation, enclosed with 6″ concrete curb
3. *Pergola adjacent to pool? Location, size, construction*	3. No	3. Yes; 10′ x 10′, latticed sides and roof	3. Yes; 6″ x 6″ wooden posts 8′ high support flat slate roof; benches entire length of pergola
CONSTRUCTION COST (*Items—labor, material, total*)	Excavation .....$ 180.00 Grading and drainage ..... 151.00 Concrete work ..... 1,400.00 Plumbing ..... 100.00 Walk (around pool)..... 159.00 TOTAL $1,990.00	Construction cost of pool not segregated in Park Department accounts	TOTAL $4,900.00 (Construction of pool and pergola included in one contract for erection of recreation building, swimming pool, bath house, and grading of recreation field; items not segregated)
OPERATION			
1. *How often is water changed?*	1. Daily	1. Weekly	1. Daily
2. *Time required to empty*	2. ———	2. 17 hours	2. 1½ hours
3. *Time required to fill*	3. ———	3. 22 hours	3. Approx. one hour
4. *Water treated with disinfectant?*	4. No	4. No	4. No; water turned on sufficiently to provide slight continuous overflow
5. *How often is pool cleaned?*	5. Daily	5. Weekly	5. Daily
1. *Length of season*	1. Ten weeks	1. Twelve weeks	1. Thirteen weeks
2. *Limit on ages of children using pool?*	2. Under 16 years	2. No	2. Twelve years and under
3. *Bathing permitted? Restrictions*	3. Yes	3. Yes; bathing suits required	3. No; water too shallow
4. *Special pool supervisor?*	4. No; play leader gives casual supervision	4. No; park policeman has general supervision	4. No; handled by playground supervisor
5. *Who takes care of maintenance, cleaning, changing water?*	5. Grounds caretaker—part time at $4.50 per day	5. Park Department	5. Caretakers for other facilities and grounds
OPERATING COST (*Wages, water supply, disinfectants*)	Items chargeable to operation of pool not segregated; no charge for water		Only cost is cleaning pool and changing water. Caretaker ½ hr. daily (estimate) at $4 per day, 6 days per week—Total $20
ATTENDANCE			
1. *Number of children using pool per season*	1. No record kept	1. No record kept	1. No record kept
2. *How many can use pool at one time?*	2. 150	2. Probably 1,500	2. Approx. 100

WADING POOLS	ROCKFORD, Illinois	SPOKANE, Washington	SPRINGFIELD, Massachusetts
DESCRIPTION			
1. *In park or playground?*	1. Mandeville Park	1. Underhill Playground	1. Emerson Wight Playground
2. *Location, with reference to other facilities*	2. Near shelter house	2. At end of playground	2. Near field house and small ball field
3. *Date built*	3. Reconstructed 1928	3. 1920	3. 1917
1. *Shape of pool*	1. Circular	1. Rectangular	1. Oval
2. *Capacity*	2. 7,411 gallons	2. 40,000 gallons	2. 90,000 gallons
3. *Dimensions* (a) *size* (b) *depth (variations)*	3. (a) 58′ diameter (b) 12″—24″	3. (a) 100′ x 60′ (b) 0 — 2′	3. (a) 130′ x 23′ 6″—18′ 6″ (b) 0—2′ 6″—3′—1′ 6″—0 (end to end)
CONSTRUCTION			
1. *Kind of material used*	1. Concrete	1. Concrete, reenforced	1. Foundation of 18″ cinders; 3″ trap rock filled with sand, tarvia applied
2. *Thickness of side walls How reenforced?*	2. 8″; ½″ rods 18″ o. c.	2. 6″	2. 18″; not reenforced
3. *Thickness of bottom How reenforced?*	3. 8″; No. 6 mesh wire, 42 lbs. per sq. ft., placed 2″ below surface	3. 6″	3. 3″; not reenforced
4. *Concrete colored?*	4. No	4. No	4. No
1. *Curb around pool? Height, thickness*	1. Yes; 12″ high, 8″ thick	1. Yes	1. Yes; 6″ high, 6″ thick
2. *Walk around pool? Width, material*	2. Yes; 6′ wide, cement	2. Yes; 5′ wide, cement	2. Yes; 18″ wide, concrete (really an apron sloping 2″ from curb)
3. *Walk slope to pool or outer edge?*	3. To outer edge	3. To outer edge	3. To outer edge
4. *If to drains, location, type, size*	4. No drains	4. ———	4. Surrounding pool is 6″ drain, open joint pipe at bottom of cinder filled trench, 4′ deep, 18″ wide
1. *Nature of ground under pool*	1. ———	1. ———	1. ———
2. *How drained under pool?*	2. 4″ layer of cinders under concrete	2. ———	2. ———
3. *Pool area enclosed?*	3. No	3. No	3. No
1. *City water supply used?*	1. Yes	1. Yes	1. Yes
2. *Inlets and outlets—number, size, type, location*	2. 1—¾″ inlet pipe through curb at water level 12″ from bottom; 1—4″ sewer pipe at maximum depth	2. 1—2″ inlet pipe at end of pool; 1—3″ drain pipe at center, deepest point	2. 2—1″ inlet pipes ("T" shaped to increase flow) at ends of pool; 1—6″ outlet pipe at base of pedestal, pool center
1. *Overflow*	1. Upright iron pipe, end perforated at water level	1. 1—2″ overflow pipe at end opposite inlet	1. In pedestal, 2″ screened pipe connects main drain
2. *Describe sand traps*	2. ———	2. None	2. None
3. *Describe shut off valve box*	3. Manhole at edge of pool	3. 10″ square concrete box containing gate valve	3. None
1. *Facilities for dressing and checking clothing?*	1. Yes; in nearby shelter house	1. No	1. No
2. *Sand boxes adjacent to pool? Location, size, construction*	2. No	2. Sand box 14′ x 12′, about 50′ from pool	2. No
3. *Pergola adjacent to pool? Location, size, construction*	3. No	3. No	3. No
CONSTRUCTION COST (*Items—labor, material, total*)	Concrete work (contract price) ..... $584.00 Grading and seeding ..... 40.00 TOTAL ..... $624.00 (Excavating, cinder fill, and plumbing work done by Park Bd. Items for such labor not segregated in park construction accounts)	TOTAL, $1,000 (Would now cost approximately $2,500.00)	Excavation, grading, and drainage ..... $300.00 Tarvia and rock Labor .....$360.00 Material ..... 490.00 850.00 Plumbing Labor ..... $65.00 Material ..... 65.00 130.00 TOTAL .....$1,280.00 (Labor and supervision furnished by Park Department)
OPERATION			
1. *How often is water changed?*	1. Daily	1. Two or three times weekly	1. Not changed
2. *Time required to empty*	2. One hour	2. Five hours	2. Two hours
3. *Time required to fill*	3. Two hours	3. Five hours	3. Ten hours
4. *Water treated with disinfectant?*	4. No	4. Yes; chloride of lime (1 lb. to 100,000 gallons of water) administered daily	4. No
5. *How often is pool cleaned?*	5. Daily	5. When emptied	5. Not cleaned
1. *Length of season*	1. Eleven weeks	1. Ten weeks	1. Three months
2. *Limit on ages of children using pool?*	2. Ten years	2. No	2. No
3. *Bathing permitted? Restrictions*	3. Yes; bathing suits required	3. Yes	3. Yes; no restrictions
4. *Special pool supervisor?*	4. Playground leader gives necessary supervision	4. No	4. No; play leaders supervise
5. *Who takes care of maintenance, cleaning, changing water?*	5. Playground caretaker	5. Playground attendant (also cares for tennis courts, house, and lawns)	5. Caretaker
OPERATING COST (*Wages, water supply, disinfectants*)	Supervision, change of water and cleaning approx. $2.00 per day. Water supply free	Impossible to compute amounts chargeable to pool; all are contained in general playground and recreation accounts	Items chargeable to pool not segregated in park and recreation accounts
ATTENDANCE			
1. *Number of children using pool per season*	1. No record kept; approx. 200 per day	1. No record kept	1. No record kept
2. *How many can use pool at one time?*	2. 100	2. 200 have used it, probably more could do so	2. ———



WADING POOL, SAWTELLE PLAYGROUND, DEPARTMENT OF PLAYGROUND AND RECREATION, LOS ANGELES, CALIFORNIA
A pool designed exclusively for wading. Sandbox is shown beneath pergola (extreme right). The young trees seen in the background will add increasingly to the general attttractiveness of this facility. (See report on Page 311)



WADING POOL, EMERSON WIGHT PLAYGROUND, SPRINGFIELD, MASSACHUSETTS
Owing to its depth, this is really a wading-swimming pool. Full report is contained on Page 313.

WADING POOLS	TULSA, Oklahoma	UNION COUNTY, New Jersey	WATERBURY, Connecticut
DESCRIPTION			
1. *In park or playground?*	1. Central Park	1. Warinanco Park	1. Park
2. *Location, with reference to other facilities*	2. ———	2. Adjacent to playground	2. Near pavilion, swings, slides
3. *Date built*	3. 1921	3. ———	3. ———
1. *Shape of pool*	1. Oblong	1. Circular	1. Circular
2. *Capacity*	2. 50,000 gallons	2. 13,500 gallons	2. 44,000 gallons
3. *Dimensions* (a) *size* (b) *depth (variations)*	3. (a) 80′ x 50′ (b) 6″—24″	3. (a) 50′ diameter (b) 6″—16″	3. (a) 80′ diameter (b) 6″—30″
CONSTRUCTION			
1. *Kind of material used*	1. Concrete	1. Concrete	1. Concrete
2. *Thickness of side walls How reenforced?*	2. 10″; not reenforced	2. 18″; ⅜″ rods	2. 18″; not reenforced
3. *Thickness of bottom How reenforced?*	3. 4″; steel wire	3. 6″ concrete on 8″ cinder base, ⅜″ rods	3. 5″
4. *Concrete colored?*	4. Yes; white, black, and red	4. No	4. No
1. *Curb around pool? Height, thickness*	1. No	1. No	1. Yes; 6″ high, 4″ thick
2. *Walk around pool? Width, material*	2. Yes; 7½′ wide, concrete	2. No	2. Yes; 4′ wide, concrete
3. *Walk slope to pool or outer edge?*	3. To pool	3. To outer edge	3. To outer edge
4. *If to drains, location, type, size*	4. To scum gutter	4. ———	4. Drains down grass slope
1. *Nature of ground under pool*	1. Dry, sandy	1. Clay	1. Hard clay, some gravel
2. *How drained under pool?*	2. 4″ drain from center of pool	2. Natural drainage	2. None, except 6″ of cinders
3. *Pool area enclosed?*	3. No	3. No	3. Partly
1. *City water supply used?*	1. Yes	1. Yes	1. Yes
2. *Inlets and outlets—number, size, type, location*	2. 1—1″ pipe, fountain spray, center of pool; 2 outlets, scum gutter and drain, at pool center and rim	2. 1—3″ c. i. pipe inlet under center of pool; 1—6″ concrete pipe outlet	2. 1—2″ galv. pipe inlet over curb from fountain 5′ outside of pool, also 1—2″ pipe at center; 1—6″ outlet pipe in center
1. *Overflow*	1. Scum gutter around pool	1. 3″ c. i. pipe with guard, 6″ below top of side wall	1. Scum gutter entirely around pool
2. *Describe sand traps*	2. ———	2. Manhole in center of pool with 6″ sump below pipes	2. None
3. *Describe shut off valve box*	3. Outside pool walk, beneath ground surface	3. 3″ gate valve in water box	3. Under ground at edge of pool
1. *Facilities for dressing and checking clothing?*	1. Dressing rooms; no checking facilities	1. No	1. Two stone houses, 12′ x 8′, one for boys, one for girls; 240 tote-boxes in each for clothes
2. *Sand boxes adjacent to pool? Location, size, construction*	2. No; under consideration	2. Yes; one of concrete sides, 30′ long, 10′ wide, between pergola and pool	2. Two side by side at edge of pool, each 12′ x 6′, made of rock
3. *Pergola adjacent to pool? Location, size, construction*	3. Yes; on walk at edge of pool; provides dressing rooms and toilets	3. Yes; about 30′ long, of wood (Small brick comfort station at end of pergola)	3. 12′ x 6′ pergola, opposite side from sand boxes at edge of pool walk, concrete floor, timber uprights and cross pieces
CONSTRUCTION COST (*Items—labor, material, total*)	Excavation .....$ 200.00 Grading and drainage ..... 150.00 Concrete work Labor .....$350.00 Material ..... 750.00 1,100.00 Pergola ..... 1,000.00 Plumbing ..... 100.00 TOTAL $2,550.00	No itemized or total cost available for wading pool alone; contract included construction of comfort station	Excavation, grading and drainage .....$3,800.00 Concrete work ..... 3,500.00 Plumbing ..... 800.00 Pergola ..... 300.00 Fence ..... 195.00 TOTAL .....$8,595.00 (All labor included in $3,800 item; work by park labor, individual items not kept separate)
OPERATION			
1. *How often is water changed?*	1. Daily	1. Daily	1. Three times weekly
2. *Time required to empty*	2. Two hours	2. One hour	2. One hour
3. *Time required to fill*	3. 2¼ hrs.	3. One hour	3. Two hours
4. *Water treated with disinfectant?*	4. No	4. No	4. No
5. *How often is pool cleaned?*	5. Daily	5. Daily	5. Three times weekly
1. *Length of season*	1. Eighteen weeks	1. 3½ months	1. Eight to ten weeks
2. *Limit on ages of children using pool?*	2. Twelve years	2. Up to eight years	2. No limit
3. *Bathing permitted? Restrictions*	3. Yes; clean clothing, use of bathing suits encouraged	3. Yes; bathing suits only	3. Yes; no restrictions
4. *Special pool supervisor?*	4. Yes; play supervisor (9:30-11:30 a. m., 3:30-7:30 p. m.), caretaker (10 a. m.-10 p. m.)	4. Yes; playground supervisor when sufficient number present	4. Yes; man all day (10 hours), woman afternoon (6 hours)
5. *Who takes care of maintenance, cleaning, changing water?*	5. Caretaker	5. Park Maintenance staff	5. Park employees
OPERATING COST (*Wages, water supply, disinfectants*)	Play supervisor $65 per month Caretaker $140 per month Separate charge for pool operation not made in general maintenance accounts	One park man, 3 hours per day, to change water and clean pool (Items chargeable to pool not segregated)	Man, $18 per week Woman, $12 per week No charge for water
ATTENDANCE			
1. *Number of children using pool per season*	1. Average approx. 350 per day; record being kept 1928 for first time	1. No record kept	1. No record kept
2. *How many can use pool at one time?*	2. Approx. 100	2. 60—75	2. ———

Tennis Courts

Reports on tennis courts of recent construction are provided from twenty-nine cities. The majority of the courts are arranged in batteries, usually two to four courts each. Ten of the units are clay courts, eight concrete, eight asphalt and two sawdust-cushion (similar to asphalt). Eighteen units are located in parks, six on playgrounds, and three on school grounds.

Facts regarding the method of building the various types of courts, the materials used, drainage and other features pertaining to actual construction work are given in considerable detail in the individual reports. Courts in twelve of the twenty-nine units are equipped with removable net posts, thus permitting unobstructed space for skating, dancing or special games. Nineteen batteries are entirely enclosed. In the case of clay courts this provision is helpful in regulating their use when not in playing condition. Moreover, it simplifies the problem of their supervision and orderly use. The courts in Baltimore, Maryland; Evansville, Indiana, and the two units in Tampa, Florida, are lighted for night play. Page 317 contains an illustration of the Evansville, Indiana, courts showing this feature. The lighting equipment used is a type generally considered satisfactory.

A description of the methods used by certain cities in constructing asphalt, clay, and concrete courts is contained in the *Park Manual*, Volume One, Pages 323-334. These pages include also the design of a tennis backstop showing details for setting the posts in concrete. Additional information regarding the layout and construction of various types of tennis courts will be found in the bibliography at the close of this statement.

The statement of cost of construction for the individual units contains items covering general construction and court equipment, with subdivisions in a number of the reports showing the amounts expended respectively for material and labor. However, total construction costs only are available for four units and for two no cost information could be obtained. The following table gives the cost of construction per court of the various types.

City	No.	Total Cost	Cost per Court	Average
Clay				
East Chicago, Ind.	1	.....	$545.24	
Birmingham, Ala.	2	$943.00	471.50	
Springfield, Mass.	2	955.00	477.50	$406.88
St. Charles, Ill.	2	542.00	271.00	
Clay				
Lynn, Mass. (Elm St. Plygr.)	4	*$1,200.00	$300.00	
Union County, N. J.	10	16,363.52	1,636.35	
Asphalt				
Kenosha, Wis.	2	2,195.89	1,097.95	
San Francisco, Cal.	2	3,157.20	1,578.60	$1,363.26
Tampa, Fla.	2	2,826.50	1,413.25	
Detroit, Mich. (St. Clair P. F.)	3	4,636.75	1,545.58	1,917.42
Evansville, Ind.	3	**6,867.78	2,289.26	
Spokane, Wash.	4	4,750.00	1,187.50	
Concrete				
East Chicago, Ind. (Tod Park)	2	2,960.00	1,480.00	
Grand Rapids, Mich.	2	3,050.00	1,525.00	
Lynn, Mass. (Memorial Park)	2	4,747.74	2,373.87	1,751.22
Newburgh, N. Y.	2	4,294.50	2,147.25	
Tacoma, Wash.	2	2,460.00	1,230.00	
Oak Park, Ill.	3	*3,910.00	1,303.33	
Los Angeles, Cal.	8	16,000.00	2,000.00	
Baltimore, Md.	10	**28,218.97	2,821.90	
Sawdust-Cushion				
Orlando, Fla.	2	1,148.29	574.15	752.57
Tampa, Fla.	2	1,858.00	929.00	
Limestone Screening				
Detroit, Mich. (Western H. S.)	2	1,687.00	843.50	

*Estimate
**Includes lighting

In considering the above unit cost items, it is necessary to keep in mind both the type of court and the number of individual courts within a given unit. The main items determining cost of construction include condition of soil, which affects both excavation and drainage, grading, materials used, partial or complete enclosure of area, and lighting equipment.

Attention is drawn to the special comments accompanying the various statements of operating expenses. They indicate not only the factors which have affected total maintenance costs but also the extent to which items are not segregated from general park or playground maintenance accounts.

It will readily be observed that the initial cost of building concrete or asphalt in comparison with clay courts is considerably higher. On the other hand, the upkeep for a number of the hard surface type of courts is negligible, whereas that for clay courts is materialy higher. In such comparisons differences in length of playing season should be noted, as well as expense occasioned by special supervision or workers required to issue permits to players. One or two instances will be observed where markings are of a permanent nature, thus eliminating an annual outlay

for this particular item. As in the case of construction costs, the statements of operating expenses indicate for a considerable number of the units no itemized figures due to the fact they are likewise included in the general operating and maintenance accounts of park or playground departments.

Information is provided regarding methods employed in the different cities to control the use of courts and the comparative uniformity with which adults are given preference during evening hours, Saturday and Sunday afternoons and holidays. Generally courts are available throughout the day and for play on Sundays.

For the most part no attendance records are kept, estimates only being provided in some cases. No doubt this situation is due to the fact that most of the courts are operated on the basis of "first come," and that attendance is available only in instances where registrations or permits are required. Cities using the permit plan are Baltimore, Maryland; Hartford, Connecticut; Orlando, Florida, and Union County, New Jersey. Charges for use of courts are made in four cities —Evansville, Indiana; Hartford, Connecticut; Kenosha, Wisconsin, and Detroit, Michigan. Tampa, Florida, charges an entry fee for tournaments.

BIBLIOGRAPHY

How to Construct a Tennis Court, Spalding Athletic Library, Published by American Sports Publishing Co., 45 Rose St., N. Y. C., $.50

Park Manual, A. S. Barnes & Co., 67 West 44th St., N. Y. C., (available through the Playground and Recreation Association of America), $20.00.

Play Areas, A. S. Barnes & Co., 67 West 44th St., N. Y. C., (available through the Playground and Recreation Association of America), $2.50

NIGHT PLAY ON HARD SURFACE TENNIS COURTS, GARVIN PARK, DEPARTMENT OF RECREATION, PARK BOARD, EVANSVILLE, INDIANA

Note substantial steel towers, position of reflectors, and visibility of playing area. (See report on Page 320)

TENNIS COURTS DESCRIPTION	ATLANTA, Georgia	BALTIMORE, Maryland	BIRMINGHAM, Alabama
1. Location *2. Number of courts* *3. Arrangement* *4. Type of courts* *5. Date built*	1. Park 2. Three 3. Side by side 4. Asphalt 5. 1927	1. Druid Hill Park 2. Ten 3. Side by side—one row 4. Concrete 5. 1928	1. Underwood Park 2. Two 3. Side by side 4. Clay 5. 1919
CONSTRUCTION *Material used—thickness each layer, surface*	3½″ crushed stone 1½″ layer asphalt	2″ medium coarse cinders well rolled 6″ concrete reenforced with wire mesh; green dye powder applied to wet concrete surface	Top soil removed to firm clay; surface smoothed by hand
1. Slope of court — direction and amount *2. Location and size of drains*	1. 4″ from net to ends 2. None	1. 1″ center to ends 2. 10—24″ x 18″ surface drains at ends of courts; 4″ agricultural tile drain lengthwise between courts	1. 12″ end to end; 6″ across 2. None
1. Posts (material) *2. Stationary or removable?* *3. Nets (material)* *4. Marking used*	1. Concrete, 6″ x 6″ 2. Stationary 3. Tar, heavy 4. White paint, as for streets	1. 2″ W. I. pipe 2. Removable 3. Heavy double center canvass strip and cord 4. Composition of Medusa cement and white marble dust 2″ wide, 3″ deep. (Park Department advises this strip extend full depth of concrete to avoid damage from freezing)	1. 5″ iron pipe filled with and set in concrete 2. Stationary 3. Tar nets 4. Lime
1. Space per court *2. Entirely enclosed?* *3. Kind of enclosure* *4. Dimensions of area*	1. 114′ x 36′; 9′ between courts, 4′ 6″ from outside courts to fence 2. Yes 3. Poultry wire, 1″ mesh 4. 135′ x 114′	1. 118′ x 48′ 2. No 3. Backstop fence (15′ high, No. 9 wire, 1½″ mesh) extending across ends of all courts 4. ———	1. 120′ x 50′ 2. Yes 3. Corner posts 2″ iron pipe, others 1¾″ iron pipe; 1¾″ mesh No. 11 gauge wire 4. 120′ x 100′
1. Lighted for night use? *2. Miscellaneous equipment*	1. No 2. None	1. Yes; eleven wooden poles 40′ high in center between courts; two 2,000 watt Cahill projectors on each pole; two projectors per court 2. Drinking fountain	1. No 2. None
CONSTRUCTION COST	Court construction Material ..... $850 Labor ..... 400 $1,250.00 Fence Material ..... $235 Labor ..... 150 385.00 TOTAL ..... $1,635.00 (Excavation charged to general work in park)	TOTAL ..... $28,218.97 (Individual cost items not segregated)	Excavation ..... $100.00 Fence Material ..... $600 Labor ..... 200 800.00 Net posts Material ..... $20 Labor ..... 5 25.00 Nets ($9 each) ..... 18.00 TOTAL $943.00
OPERATION *Workers — number, hours, wages, duties*	None	No worker on courts; supervisor of nearby swimming pool issues permits	None; players care for courts
1. Control of use *2. Available only when worker present?* *3. Use by children restricted?*	1. "First come" 2. No 3. No	1. Advance reservations required Saturday afternoon, Sunday and holidays; other times "first come" with all securing permits 2. Always available 3. Only adults 8 p.m.—11 p.m., with preference Saturday afternoon, Sunday and holidays	1. "First come" 2. No 3. No
1. Length of season *2. Hours per day* *3. Play on Sunday?* *4. Charge for use of courts* *5. Income*	1. All year 2. Always open 3. Yes 4. No charge 5. None	1. September 8th—November 30th, 1928; regular season to be March 15th—November 15th 2. 8 a.m.—11 p.m. 3. Yes 4. No charge 5. None	1. All year 2. Always open 3. Yes 4. No charge 5. None
1. Number of playing days *2. Number of players or permits* *3. Number of sets or hours*	No record	1. 83 playing days 2. Opened September, 1928 September ..... 2,537 October ..... 1,988 November ..... 246 3. (Two hours each) September ..... 976 sets October ..... 752 " November ..... 111 "	No record
1. Courts used for skating? *2. Present condition of courts*	1. No 2. Good	1. No 2. Excellent; green surface coloring has faded somewhat	1. No 2. Good condition; usable second day after heavy rainfall
OPERATING COST	Repairs charged to replacement account for park operation	For a full season: time of pool supervisor issuing permits, (estimate) $20.00	Operating cost slight; absorbed in general park maintenance accounts

TENNIS COURTS	CLAREMONT, New Hampshire	DETROIT, Michigan	DETROIT, Michigan
DESCRIPTION			
1. *Location*	1. Monadnock Park	1. St. Clair Playfield	1. Western High School
2. *Number of courts*	2. Five	2. Three	2. Two
3. *Arrangement*	3. Side by side	3. Side by side	3. Side by side
4. *Type of courts*	4. Clay	4. Asphalt	4. Limestone screening
5. *Date built*	5. Two in 1919 Two in 1920 One in 1922	5. 1928	5. 1924
CONSTRUCTION *Material used—thickness each layer, surface*	2′ coarse cinders rolled 5″ of clay	9″ excavation 6″ crushed rock 2″ limestone screening 1½″ asphalt (Westphalt A)	6″ cinder base 3″ layer limestone screened to ⅛″ Sharp sand screened to 1/10″, two applications; cal. chl. as binder, 1½ lb. to one sq. yd.
1. *Slope of court — direction and amount*	1. None	1. 2″ slope, net to base line	1. 8″ across width of two courts; 10″ diagonally across length
2. *Location and size of drains*	2. None	2. Sandy sub-soil provides adequate drainage	2. Natural drainage sufficient
1. *Posts (material)*	1. 4″ x 4″ red oak	1. 2″ galv. iron	1. 4″ x 4″ wooden posts set in concrete
2. *Stationary or removable?*	2. Removable	2. Stationary	2. Stationary
3. *Nets (material)*	3. Tar nets	3. Tarred	3. Spalding double strand
4. *Marking used*	4. Galv. steel and lead tape—cloth tape	4. Paint	4. Tape
1. *Space per court*	1. 118′ x 46′; 10′ between courts, 7′ from end courts to side of fence; 20′ from back line to backstop	1. 100′ x 40′	1. 118′ x 50′
2. *Entirely enclosed?*	2. Yes	2. Yes	2. Yes
3. *Kind of enclosure*	3. 1¼″ posts (pipe) 12′ apart, set in concrete; fence 8′ high, (two 4′ widths of poultry wire). Top railing of 1¼″ pipe	3. Fence 10′ high, chain link, No. 9 galv. wire	3. Chain link, diamond mesh, 10′ high
4. *Dimensions of area*	4 234′ x 118′	4. 163′ x 120′	4. 118′ x 100′
1. *Lighted for night use?*	1. No	1. No	1. No
2. *Miscellaneous equipment*	2. None	2. Wooden benches	2. None
CONSTRUCTION COST	Court construction Material ..... $1,000 Labor ..... 100 $1,100.00 Fence (wire) ..... 90.00 Net posts ($7 per set)... 35.00 Equipment—acid for weeds, rakes, etc. ..... 25.00 TOTAL ..... $1,250.00 (Above figures are estimates. Cost items for excavation not included. Total construction cost abnormal due to wet ground underlying courts)	Excavation ..... $ 500.00 Court construction Material ..... $1,959 Labor ..... 1,132 3,091.00 Nets ..... 6.75 Fence ..... 1,039.00 TOTAL ..... $4,636.75 (Kentucky Rock asphalt, cost, $16.50 per ton, F.O.B. Detroit, 45 tons per court Westphalt A, cost, $10 per ton, F.O.B. Detroit, 45 tons per court)	Excavation and court construction ..... $ 800.00 Fence ..... 872.00 Equipment ..... 15.00 TOTAL $1,687.00
OPERATION *Workers — number, hours, wages, duties*	Three men 10 days in Spring—$3.60 per day Attendant—½ day at $3.60 per day during playing season	Caretaker of playfield paints lines (once per season) and puts up nets; director issues permits hourly	
1. *Control of use*	1. "First come"; 45 minute limit when players are waiting	1. Permit secured in person 15 min. before hour, for one hour only	1. Permit; school use exclusively during term; Recreation Department in summer
2. *Available only when worker present?*	2. No	2. No	2. No
3. *Use by children restricted?*	3. Yes; adults given preference after 4 p.m.	3. Only adults after 5 p. m. Adults first Saturday afternoons, Sundays and holidays	3. No
1. *Length of season*	1. Five months	1. April 15th to November 1st	1. ———
2. *Hours per day*	2. During daylight	2. 5 a.m.—9 p.m.	2. ———
3. *Play on Sunday?*	3. Yes	3. Yes	3. ———
4. *Charge for use of courts*	4. No charge	4. No charge	4. No charge
5. *Income*	5. None	5. None, except entry fee of $1 to tournaments, which is used for trophies	5. None
1. *Number of playing days*	1. Approximately 150	No record	No record
2. *Number of players or permits*	2. No record		
3. *Number of sets or hours*	3. No record		
1. *Courts used for skating?*	1. No	1. No	1. No
2. *Present condition of courts*	2. Fair	2. ———	2. ———
OPERATING COST	Wages ..... $342.00 Marking ..... 27.00 Material ..... 25.00 TOTAL $394.00	Cost chargeable to courts not segregated	Labor for maintenance ..... $25.00 Cal. chloride (two applications per season) ..... 50.00 TOTAL $75.00

TENNIS COURTS	EAST CHICAGO, Indiana	EAST CHICAGO, Indiana	EVANSVILLE, Indiana
DESCRIPTION			
1. *Location*	1. Riley Park	1. Tod Park	1. Garvin Park
2. *Number of courts*	2. One	2. Two	2. Three
3. *Arrangement*	3. ———	3. Side by side	3. Side by side
4. *Type of courts*	4. Clay	4. Concrete	4. Ky-rock (similar to asphalt)
5. *Date built*	5. 1926	5. 1923	5. 1927
CONSTRUCTION *Material used—thickness each layer, surface*	4″ layer of cinders on natural sand base 4″ layer of clay for surface	4″ concrete surface on solid sand base	Ky-rock surface with 6″ rock base supplemented by 6″ x 6″ concrete coping at court ends.
1. *Slope of court — direction and amount*	1. 5″, net to base lines	1. 2″, net to ends	1. 3″ slope from net to drains at court ends
2. *Location and size of drains*	2. Natural drainage sufficient	2. Natural drainage adequate	2. Concrete surface drain 2′ wide along sides of courts with spillway at ends. No drainage under courts.
1. *Posts (material)*	1. 3″ pipe	1. Pipe	1. 2½″ cast iron pipe
2. *Stationary or removable?*	2. Removable	2. Removable	2. Stationary
3. *Nets (material)*	3. Tar nets	3. Tar nets	3. Cord nets
4. *Marking used*	4. Lime	4. Street paint	4. White enamel paint
1. *Space per court*	1. 10′ on sides; 16′ from base line to fence	1. 120′ x 54′; 12′ on sides	1. 120′ x 42′—center court; others 120′ x 50′
2. *Entirely enclosed?*	2. Yes	2. Yes	2. Yes
3. *Kind of enclosure*	3. Poultry wire	3. Cyclone fence 12′ high, sides 6′ high, sloping to 12′ at corners, No. 11 wire 1¾″ mesh	3. 12′ wire fence 1¾″ mesh
4. *Dimensions of area*	4. 110′ x 56′	4. 120′ x 108′	4. 192′ x 126′
1. *Lighted for night use?*	1. No	1. No	1. Yes; four steel towers placed on sides and between the three courts; 6—1,000 watt Cahill lights
2. *Miscellaneous equipment*	2. None	2. None	2. Four benches and supplies kept in shelter house
CONSTRUCTION COST	Court construction Material— 76 cu. yds. clay.$190.00 75 cu. yds. cinders 30.00 Labor ..... 75.00 $295.00 Fence— Material—lumber* 54.68 3,264 sq. ft. wire 130.56 Labor ..... 60.00 245.24 Net posts ..... 5.00 TOTAL ..... $545.24 *14 pieces 4″ x 4″ x 12′.....$13.40 12 " 4″ x 4″ x 8′..... 7.68 63 " 2″ x 4″ x 16′..... 33.60	Grading .....$ 250.00 Court construction Material .....$1,328.25 Labor ..... 721.75 2,050.00 Fence ..... 650.00 Net posts ..... 10.00 TOTAL .....$2,960.00 (Cost abnormal due to War period prices still prevailing)	Court construction Material .....$2,677.98 Labor ..... 1,211.24 $3,889.22 Lights ..... 1,338.00 Towers ..... 1,640.56 TOTAL .....$6,867.78 (Construction work done late Fall; weather conditions bad)
OPERATION *Workers — number, hours, wages, duties*	Park men do necessary work	Park Department takes care of all courts (24)	Attendant—3:30 to 9:30 p.m. daily, 12:30 to 5 p.m. Saturday, 8:00 a.m. to 5:00 p.m. Sunday; $50 per month (12 months); lighting and general supervision
1. *Control of use*	1. "First come"; one set limit if players waiting	1. "First come"; one set limit if players waiting	1. "First come" and reservation
2. *Available only when worker present?*	2. Always available	2. Always available	2. No
3. *Use by children restricted?*	3. Adults have preference after 5 p.m.	3. Adults have preference after 5 p.m.	3. Yes; no children after 5 p.m., Saturday p.m., or Sunday
1. *Length of season*	1. Five or six months	1. Five or six months	1. All year (irregular use in winter)
2. *Hours per day*	2. During daylight	2. During daylight	2. During daylight
3. *Play on Sunday?*	3. Yes	3. Yes	3. Yes
4. *Charge for use of courts*	4. No charge	4. No charge	4. Only when reservation is made (40c per hour), collected by attendant
5. *Income*	5. None	5. None	5. Approximately $10 per week from reservations
1. *Number of playing days*	Attendance not kept	1. ———	No record
2. *Number of players or permits*		2. 3,000 per court for season (estimate)	
3. *Number of sets or hours*		3 ———	
1. *Courts used for skating?*	1. ———	1. No	1. No
2. *Present condition of courts*	2. ———	2. ———	2. Good; attractive courts
OPERATING COST	$25 per year for material and labor (estimate); items not segregated in park records	All work done by park department	Wages .....$600.00 Remaining items not available; first year of operation not yet completed (August, 1928)

TENNIS COURTS DESCRIPTION	GRAND RAPIDS, Michigan	HARTFORD, Connecticut	KEWANEE, Illinois
1. *Location* 2. *Number of courts* 3. *Arrangement* 4. *Type of courts* 5. *Date built*	1. John Bull Park 2. Two 3. Side by side 4. Concrete 5. 1928	1. Pope Park 2. Four 3. Side by side 4. Clay 5. 1908	1. Northeast Park 2. Four 3. Laid out N. and S.—courts 20′ apart 4. Three clay, one crushed rock 5. 1926, 1927, 1928
CONSTRUCTION *Material used—thickness each layer, surface*	Excavation 6″ deep, filled with 6″ layer reenforced concrete with expansion joints (concrete mixed with lamp black); all court lines of white cement (permanent)	Information not available	Three courts—natural cinder base 6″ clay surface One court—natural cinder base 6″ crushed rock surface
1. *Slope of court — direction and amount* 2. *Location and size of drains*	1. 1″ end to end 2. Natural drainage sufficient	1. 4″ from center to court ends 2. None	1. Approximately 4″ slope from middle to ends 2. Site originally a brick yard; cinder base rests on layer of discarded brick, furnishing natural drainage
1. *Posts (material)* 2. *Stationary or removable?* 3. *Nets (material)* 4. *Marking used*	1. 4″ galv. pipe 2. Stationary 3. Tarred 4. Cement	1. 4″ x 4″ wood 2. Stationary 3. ——— 4. Whiting	1. Wood, set in concrete 2. Stationary 3. Cord nets 4. Lime
1. *Space per court* 2. *Entirely enclosed?* 3. *Kind of enclosure* 4. *Dimensions of area*	1. 120′ x 40′ 2. No 3. Backstops (ends and wings) 4. ———	1. 78′ x 36′; 18′ from base line and side lines of outside courts to fence; 12′ between courts 2. Yes 3. Posts and bars of 2″ pipe; fence 10′ high—4′ width Anchor fence below; 6′ width poultry wire above 4. 216′ x 114′	1. 20′ from base line to fence on each end; 20′ between courts 2. Two ends and one side 3. Poultry wire, 2″ uprights, 12′ high 4. ———
1. *Lighted for night use?* 2. *Miscellaneous equipment*	1. No 2. Two benches	1. No 2. Supply box, marker, hose Pergolas between courts; seats beneath	1. No 2. Marker, four benches
CONSTRUCTION COST	Excavation and court construction ..... $2,400.00 Backstops ..... 600.00 Equipment ..... 50.00 TOTAL $3,050.00	Information not available	TOTAL (estimate) ..... $800.00 (Work done by Park Department; separate items not available)
OPERATION *Workers — number, hours, wages, duties*	Playground director in charge	Attendant—6 a.m. to 3 p.m., 7 days per week, at $4 per day. Full care of courts and surrounding grounds consisting of more than two acres Attendant—8 a.m. to 11 a.m., 3 p.m. to 8:30 p.m., 7 days per week, at $3 per day; care of tennis house, regulates play on courts from 3 p.m. to 8:30 p.m., also cares for playground adjacent to courts	One park employee, three hours per day, 50c per hour, during season
1. *Control of use* 2. *Available only when worker present?* 3. *Use by children restricted?*	1. Reservations one week in advance 2. ——— 3. Cannot use after 5 p.m., adults have preference Saturday afternoon and Sunday	1. Permit; court not held if applicant fails to report 2. Yes 3. No	1. "First come"; limited to two sets if courts crowded 2. No 3. No
1. *Length of season* 2. *Hours per day* 3. *Play on Sunday?* 4. *Charge for use of courts* 5. *Income*	1. May to November 2. Daylight hours 3. Yes 4. No charge 5. None	1. Summer months 2. 9 a.m. to 8:30 p.m. 3. Yes 4. Adults 10c per hour. Caretaker collects permit slips at office. No charge for children 5. Deposited in one account for all courts of city	1. Summer months 2. During daylight 3. Yes 4. No charge 5. None
1. *Number of playing days* 2. *Number of players or permits* 3. *Number of sets or hours*	No record	1. ——— 2. 1924 ..... 13,260 1925 ..... 13,281 1926 ..... 14,018 1927 ..... 11,441 3. ———	1. ——— 2. Approximately 4,450 used courts in 1928 3. ———
1. *Courts used for skating?* 2. *Present condition of courts*	1. No 2. ———	1. No 2. Good; well kept	1. No 2. Very good
OPERATING COST	None	1922—TOTAL ..... $ 857.86 1923— " ..... 1,727.35 1924— " ..... 2,791.80 1925— " ..... ——— 1926— " ..... 842.57 1927— " 1,308.51	On basis of 5 mos. use, labor cost would be $75, but no separate tennis account kept

TENNIS COURTS DESCRIPTION	KENOSHA, Wisconsin	LOS ANGELES, California	LYNN, Massachusetts
1. *Location*	1. Lincoln Park	1. Harvard Playground	1. Elm Street Playground
2. *Number of courts*	2. Two	2. Eight	2. Four
3. *Arrangement*	3. Side by side	3. Two sections, end to end; four courts side by side in each	3. Side by side
4. *Type of courts*	4. Ky-rock	4. Concrete	4. Clay
5. *Date built*	5. 1928	5. 1927	5. 1911
CONSTRUCTION *Material used—thickness each layer, surface*	Excavated to 8" depth with 2" slope from ends to center. 6" foundation of crushed limestone (1¾"—2¼") heavily rolled, maintaining grade and applying screenings and water while rolling; 10 days for setting; then top layer of Ky-rock 1½" thick, rolled and finished with surface of screened Ky-rock heavily rolled	4" sand cushion on top of which is a 3½" layer of concrete (base 1:2½:4½ mix, topped ½" thick, 1:2 mix) Expansion joints under net and between each court. Entire area reenforced with 6" mesh No. 10 wire netting	Gravel sub-soil; ½" surface layer of clay. Have not been resurfaced and are in good condition
1. *Slope of court—direction and amount*	1. 2" from ends to center	1. 1' across each two courts	1. 8" slope extending diagonally from one corner to opposite corner of four courts
2. *Location and size of drains*	2. Concrete gutter 8" wide under nets, 0—3" deep. Extends across both courts to catch basin	2. Court surfaces are 2" above natural grade	2. Artificial drainage unnecessary; surface drainage basin at corner of enclosure
1. *Posts (material)*	1. Galv. pipe set in concrete	1. 3" galv. iron pipe	1. 3" iron pipe 2½' in ground
2. *Stationary or removable?*	2. Stationary	2. Stationary	2. Stationary
3. *Nets (material)*	3. Wire nets	3. Tarred nets	3. ———
4. *Marking used*	4. Yellow paint	4. Tile and special white concrete brick lines (same texture as surface concrete)	4. Lime
1. *Space per court*	1. 110' x 45'	1. 125' x 60'	1. 125' x 45'; 9' between courts, 22' from base line to backstop
2. *Entirely enclosed?*	2. Ends only; will enclose next year	2. Yes	2. Yes
3. *Kind of enclosure*	3. Backstops 96' long; two wings 20' each	3. Each two courts enclosed, 125' x 120'; chain link fence 10' high, 1¾" mesh No. 11 wire; 2" galv. pipe posts with 1½" rail top and center; 4" x 6" redwood strip entirely around courts, ¾" above surface; 2 No. 6 wires (tight) between center and bottom.	3. Fence 10' high (5' woven wire below, 5' poultry wire above)
4. *Dimensions of area*	4. 120' x 114'	4. ———	4. 180' x 125'
1. *Lighted for night use?*	1. No	1. No	1. No
2. *Miscellaneous equipment*	2. Benches, pavilion near by	2. Two park benches and umpire stand (3' x 3' x 5' 6" high) per court Two drinking fountains	2. 5' x 3' supply box for lime and marker
CONSTRUCTION COST	Excavation, drainage and court construction Material .....$1,086.05 Labor ..... 685.00 $1,771.05 Backstops ..... 354.84 Net posts and net ($35 each) 70.00 TOTAL .....$2,195.89 (All work done by Park Department)	Court construction.....$11,600.00 Fence ..... 4,400.00 TOTAL .....$16,000.00 (All facilities for play and recreation purposes are designed and the construction supervised by Division of Construction and Maintenance of Playground and Recreation Department)	Court construction .....$1,080.00 Excavation ..... 120.00 TOTAL .....$1,200.00 (Figures are estimates—exact items not available)
OPERATION *Workers—number, hours, wages, duties*	All work done by regular park employees	Little maintenance required; courts policed daily and washed weekly by playground caretaker (approximately three hrs. work per wk.)	Attendant—eight hours per day, 52 wks.; $34.80 per wk. for 12 wks., $29 per wk. remainder of year; helps on playground; marks and cares for courts
1. *Control of use*	1. Permit	1. "First come"; limited to one set, no deuce sets	1. Players lay racquets in line on numbers as they arrive; one hour playing period allowed
2. *Available only when worker present?*	2. Yes	2. Always available	2. Yes, but permission may be secured to play any time
3. *Use by children restricted?*	3. No	3. Yes; no players under 18 years on Saturday and Sunday afternoons or week days after 5 p.m.	3. No
1. *Length of season*	1. Seven months	1. All year	1. Six months
2. *Hours per day*	2. Fourteen hours	2. During daylight	2. Fourteen hours
3. *Play on Sunday?*	3. Yes	3. Yes	3. Yes
4. *Charge for use of courts*	4. 25c per set, children and adults (longer use if courts are not crowded), collected by park custodian	4. No charge	4. No charge
5. *Income*	5. Receipts not yet available	5. None	5. None
1. *Number of playing days*	Report not yet available	1. 365	1. 176
2. *Number of players or permits*		2. 300 (estimated); no record kept	2. Average 96 per day from 2 p.m. to 8 p.m.
3. *Number of sets or hours*		3. ———	3. ———
1. *Courts used for skating?*	1. No	1. No	1. No
2. *Present condition of courts*	2. Good—well constructed	2. ———	2. Good
OPERATING COST	Courts completed August, 1928; maintenance cost expected to be very low	Approximately $5 per wk.	Wages (estimate) .....$417.60 Material (approx.)..... 53.30 TOTAL $470.90

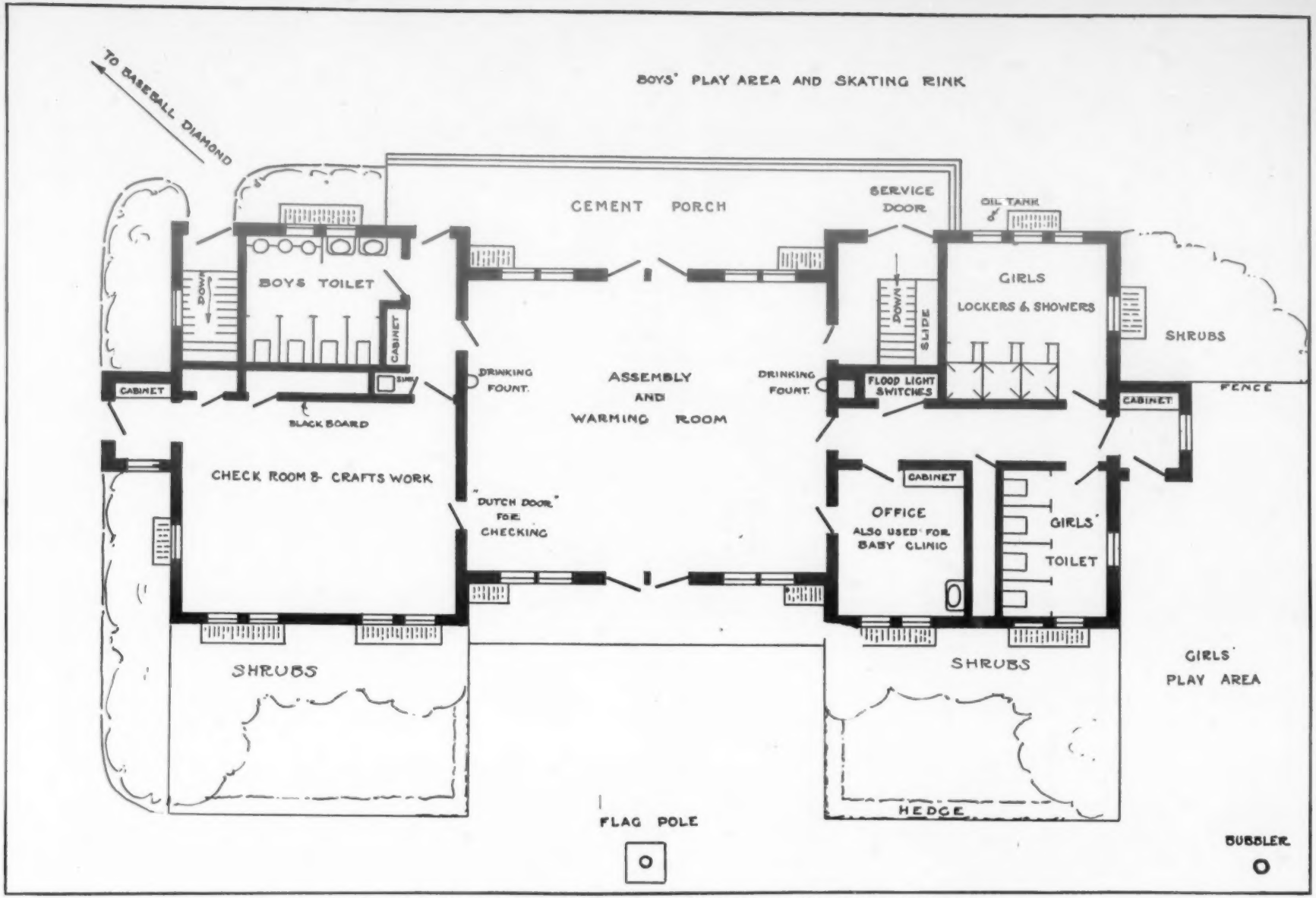
TENNIS COURTS DESCRIPTION	LYNN, Massachusetts	NEWBURGH, New York	NEWBURGH, New York
1. *Location*	1. Memorial Park	1. Delano Hitch Park Recreation Field	1. Recreation Park
2. *Number of courts*	2. Two	2. Two	2. Two
3. *Arrangement*	3. Side by side	3. Side by side	3. Side by side
4. *Type of courts*	4. Concrete	4. Concrete	4. Clay
5. *Date built*	5. 1927	5. 1924	5. 1918
CONSTRUCTION *Material used—thickness each layer, surface*	8" base of cinders 4" layer of concrete 1" surface layer of finish concrete	6" cinder base; 4½" concrete slab; 1½" concrete top layer (reenforced with wire mesh, 28 lbs. per 100 sq. ft.)	Field stone foundation 3' deep; coal ashes 8" deep; surface layer 4" clay, hand rolled
1. *Slope of court — direction and amount*	1. 12" slope extending diagonally from one corner to opposite corner of second court	1. 4" slope across entire concrete area	1. 2" slope, net to ends
2. *Location and size of drains*	2. None	2. 5" tile drain, 3' below surface, in trench of crushed stone, surrounds courts at outer edge	2 Natural drainage good
1. *Posts (material)*	1. 2" galv. pipe filled with cement	1. 2" W. I. pipe equipped with idler and net reel	1. 2" W. I. pipe
2. *Stationary or removable?*	2. Stationary	2. Removable—fit into 2½" cast iron pipe set 3' in ground	2. Stationary
3. *Nets (material)*	3. Tar nets	3. Cord	3. Cord
4. *Marking used*	4. Traffic paint	4. Asphalt paint (black)	4. Tape to start season, then lime
1. *Space per court*	1. 120' x 56'	1. 110' x 55'	1. 110' x 50'
2. *Entirely enclosed?*	2. No	2. Yes	2. Yes
3. *Kind of enclosure*	3. Backstop at court ends; 375' of fence (No. 9 wire, 2" mesh), 10' high; posts 2½", 8' apart, set in concrete 3' deep; three corner posts set in 16" concrete base, 3' in ground; top rail 1⅝"	3. Woven wire fence 10' high adjoins fenced clay court area	3. Woven wire fence 10' high
4. *Dimensions of area*	4. ———	4. 120' x 120'	4. 110' x 100'
1. *Lighted for night use?*	1. No	1. No	1. No
2. *Miscellaneous equipment*	2. None	2. Sixteen benches; other supplies stored in park building	2. Supplies stored in shed; sixteen benches
CONSTRUCTION COST	TOTAL .....$4,747.74 (Includes $750 cost of backstops. Other items not available)	Excavation, drainage, court construction .....$3,457.10 Architect ..... 227.40 Fence (3 sides) ..... 610.00 TOTAL $4,294.50	Information not available
OPERATION *Workers — number, hours, wages, duties*	Playground worker only, gives minimum care required	Care needed negligible; workers receive 55c per hour. Only time spent for courts is in unlocking and locking gates. Marked once a year	Attendant—one hour per day (each court), 26 wks., 55c per hour; mark and roll courts, cut lawn
1. *Control of use*	1. "First come"	1. "First come"; one set if other players waiting	1. "First come"; limited to one set if players waiting
2. *Available only when worker present?*	2. No	2. Yes	2. Yes
3. *Use by children restricted?*	3. No	3. Restricted to mornings and early afternoons when adults present	3. Yes; restricted to mornings and early afternoons if adults are waiting
1. *Length of season*	1. 176 days	1. Eight months	1. Seven months
2. *Hours per day*	2. During daylight	2. 7 a.m. to dark	2. 7 a.m. to dark
3. *Play on Sunday?*	3. Yes	3. No	3. No
4. *Charge for use of courts*	4. No charge	4. No charge	4. No charge
5. *Income*	5. None	5. None	5. None
1. *Number of playing days*	Full season's record not available	1. ———	1. Approximately 165
2. *Number of players or permits*		2. No record	2. No record
3. *Number of sets or hours*		3. No record	3. No record
1. *Courts used for skating?*	1. No	1. No	1. No
2. *Present condition of courts*	2. Good	2. Splendid	2. Good
OPERATING COST	Nets at $8 each; marking paint supplied by Park Department	Wages (estimate) .....$ 8.80 Material ..... 1.20 TOTAL $10.00	Wages .....$222.80 Material (estimate) ..... 38.00 TOTAL $260.80

TENNIS COURTS DESCRIPTION	OAK PARK, Illinois	ORLANDO, Florida	SAN FRANCISCO, California
1. *Location*	1. Scoville Place	1. ———	1. Playground
2. *Number of courts*	2. Three	2. Two	2. Two
3. *Arrangement*	3. Side by side	3. Side by side	3. Side by side
4. *Type of courts*	4. Concrete (brick dust surface)	4. Sawdust-cushion	4. Asphalt
5. *Date built*	5. 1926	5. 1928	5. 1928
CONSTRUCTION *Material used—thickness each layer, surface*	3" coarse concrete on existing surface of old clay courts (otherwise 6" base coarse cinders); brick dust surface 1" thick	4" Ocala rock base wet and rolled, generous application of crude oil left to soak and dry for two weeks; ⅛" layer of asphalt; ½" layer of sawdust applied; after asphalt cools, surplus sawdust is removed. Using courts before sawdust is swept off improves the surface	3½" Portland cement concrete 1" sheet asphalt
1. *Slope of court — direction and amount*	1. 2" slope, net to base lines	1. 4" slope, end to end	1. 1.5% side to side and end to end
2. *Location and size of drains*	2. None	2. None	2. 4" drain pipe from scupper, located on lower side of court, to sewer
1. *Posts (material)*	1. 2" steel posts	1. 2" galv. iron	1. Steel tubing
2. *Stationary or removable?*	2. Removable	2. Removable	2. Removable
3. *Nets (material)*	3. Cord	3. Heavy tar	3. Creosoted netting
4. *Marking used*	4. Asphalt expansion joints at singles court lines; otherwise black asphalt paint	4. Paint	4. Traffic paint (white)
1. *Space per court*	1. 120′ x 43′	1. 120′ x 50′; 10′ between courts	1. 120′ x 50′
2. *Entirely enclosed?*	2. No	2. No	2. Yes
3. *Kind of enclosure*	3. Cyclone fence; backstop 12′ high across entire ends of courts (129′ long, wings 30′ each), 21′ from base lines; wire 1¾" mesh	3. Heavy poultry wire fence 10′ high; 2" galv. pipe uprights, 10′ apart; 1½" galv. pipe for top railing; backstop 155′ long, each end	3. Chain link copper bearing fence, 10′ high, with copper bearing steel pipe posts set 10′ apart in concrete base 1′ in diameter, 3′ deep. (Entire area enclosed is covered by 3½" concrete and 1" asphaltic sheeting.)
4. *Dimensions of area*	4. 129′ x 120′	4. 120′ x 100′	4. ———
1. *Lighted for night use?*	1. No	1. No	1. No; under consideration
2. *Miscellaneous equipment*	2. Supplies stored in park building	2. Three benches	2. None
CONSTRUCTION COST	Drainage ..... $ 100.00 Court construction..... 3,100.00 Grading ..... 100.00 Backstops ..... 500.00 Net posts ..... 60.00 Equipment ..... 50.00 TOTAL ..... $3,910.00 (Items are estimates, but known to be reliable)	Court construction ..... $ 793.00 Backstops ..... 288.29 Nets ($13.50 each)..... 27.00 Net posts ($20 each)..... 40.00 TOTAL $1,148.29	Excavation (30c per cu. yd.) $ 50.00 Drainage (42c per lin. ft.) 42.00 Court construction (17c per sq. ft.) ..... 2,040.00 Fence ($2.26 per lin. ft.).. 994.40 Net posts ($15.40 per pair) 30.80 TOTAL $3,157.20
OPERATION *Workers — number, hours, wages, duties*	Park laborers give casual care needed	No workers for courts	Courts cared for by playground directors and playground caretaker
1. *Control of use*	1. "First come"; 30 minutes if players waiting	1. Permit; others may play but permit holders have first claim	1. "First come" and "winners"
2. *Available only when worker present?*	2. ———	2. ———	2. Courts used only when playground is open
3. *Use by children restricted?*	3. Yes; only adults Saturday afternoons and evenings	3. Only adults after 4 p.m.; after 1 p.m. on holidays	3. No
1. *Length of season*	1. Eight months	1. Twelve months	1. All year
2. *Hours per day*	2. Daylight hours	2. Daylight hours	2. Six to twelve hours
3. *Play on Sunday?*	3. Yes	3. Yes	3. Yes
4. *Charge for use of courts*	4. No charge	4. No charge	4. No charge
5. *Income*	5. None	5. None	5. None
1. *Number of playing days*	1. 300	1. All year	
2. *Number of players or permits*	2. No record	2. Sept. 10 to 15, 1928, 72 permits	
3. *Number of sets or hours*	3. No record	3. ———	
1. *Courts used for skating?*	1. No	1. No	1. No
2. *Present condition of courts*	2. Splendid; surface is resilient	2. Good	2. Good condition
OPERATING COST	$10 including asphalt paint (estimate)	Completed August, 1928; practically no upkeep expected	Very small amount per year; exact items not available

TENNIS COURTS DESCRIPTION	SOUTH BEND, Indiana	SPOKANE, Washington	SPRINGFIELD, Massachusetts
1. *Location* 2. *Number of courts* 3. *Arrangement* 4. *Type of courts* 5. *Date built*	1. Pottawattami Park 2. Four 3. Side by side 4. Clay 5. 1928	1. Mission Park 2. Four 3. Side by side 4. LayKold asphalt 5. 1913, resurfaced 1928	1. Forest Park 2. Two 3. Side by side 4. Clay 5. ———
CONSTRUCTION *Material used—thickness each layer, surface*	6″ layer coarse cinders on gravel sub-grade 5″ clay, rolled	2″ layer of LayKold on gravel sub-soil base	Sub-surface sand 6″ layer of cinders 4½″ layer of clay
1. *Slope of court — direction and amount* 2. *Location and size of drains*	1. 4″ slope, net to backstop 2. Good natural drainage. Expect to install two catch basins at ends of courts (surface drainage)	1. 1″, center to ends 2. Gravel sub-soil sufficient	1. Slope from center to sides 2. Natural drainage sufficient
1. *Posts (material)* 2. *Stationary or removable?* 3. *Nets (material)* 4. *Marking used*	1. 3″ galv. iron, set in concrete 2. Stationary 3. Cord 4. Lime	1. 3″ galv. pipe 2. Stationary 3. Tarred, double center, 21 cord 4. Street paint	1. 3″ iron posts 2. Removable 3. Heavy 4. Tape, treated with white lead
1. *Space per court* 2. *Entirely enclosed?* 3. *Kind of enclosure* 4. *Dimensions of area*	1. 108′ x 42′ 2. Yes 3. Backstops 12′ high; sides 5′ high; wire 2″ mesh, No. 9 gauge 4. ———	1. 118′ x 45′ 2. Yes 3. Fence of 1½″ mesh poultry wire, 8′ high, sides sloping to 5′ at 70′ from corners. Posts 8′ apart; bottom, middle and top rails of 2″ black pipe (soon to be replaced with 12′ Page fence) 4. 180′ x 118′	1. 126′ x 57′ 2. Yes 3. Heavy poultry wire; 6″ x 2″ wood posts, (6″ x 4″ at corners), 10′ high, 12′ apart 4. 126′ x 114′
1. *Lighted for night use?* 2. *Miscellaneous equipment*	1. No 2. Four benches, supply box, markers	1. No 2. Park benches	1. No 2. Roller, other supplies stored in small house
CONSTRUCTION COST	(Construction work by park department; segregated cost items not available)	Court construction (contract) .....$4,000.00 Fence at $1.25 per linear ft. ..... 750.00 TOTAL .....$4,750.00 (Original work done by regular park laborers)	Excavation and drainage...$252.00 Court construction..... 480.00 Fence ..... 120.00 Net posts..... 12.00 Equipment ..... 91.00 TOTAL .....$955.00 (New tennis locker house being constructed, with showers for both men and women; will serve 24 courts)
OPERATION *Workers — number, hours, wages, duties*	Park caretaker attends courts one hour per day, 50c per hour, 28 weeks	Park men do necessary work; averages 1—2 hrs. per wk.	Attendant (man), one hour per day, 50c per hour
1. *Control of use* 2. *Available only when worker present?* 3. *Use by children restricted?*	1. "First come" 2. No 3. Cannot play when adults waiting	1. "First come"; (reservations for tournaments); limit to two non-advantage sets when players waiting 2. Always available 3. Adults have preference after 6 p.m., Saturday afternoons, Sundays and holidays	1. Reservations in afternoons and evenings; one hour for singles, two hours for doubles 2. Yes 3. No
1. *Length of season* 2. *Hours per day* 3. *Play on Sunday?* 4. *Charge for use of courts* 5. *Income*	1. 6½ months 2. Daylight hours 3. ——— 4. No charge 5. None	1. Nine months (approximately) 2. 12 hrs. 3. Yes 4. No charge 5. None	1. Five or six months 2. 6 a.m.—8 p.m. 3. Yes 4. No charge 5. None
1. *Number of playing days* 2. *Number of players or permits* 3. *Number of sets or hours*		1. ——— 2. Attendance not kept; courts used to capacity during favorable weather 3. ———	1. ——— 2. 335 per week 3. ———
1. *Courts used for skating?* 2. *Present condition of courts*	1. No 2. Very good	1. No 2. Good	1. No 2. Excellent
OPERATING COST	Wages .....$ 84.00 Material ..... 40.00 TOTAL $124.00	Items chargeable to courts not segregated in park maintenance accounts	TOTAL $245.50

TENNIS COURTS DESCRIPTION	ST. CHARLES, Illinois	TACOMA, Washington	TAMPA, Florida
1. *Location* 2. *Number of courts* 3. *Arrangement* 4. *Type of courts* 5. *Date built*	1. School Playground 2. Two 3. Side by side 4. Clay 5. 1928	1. Jason Lee School 2. Two 3. Side by side 4. Concrete 5. 1928	1. Philip Shore Playground 2. Two 3. Side by side 4. Sawdust-cushion 5. 1928
CONSTRUCTION *Material used—thickness each layer, surface*	4″ layer of clay with surface dressing of sand and clay mixed	3″ pea gravel sub-base 3″ concrete base 1″ cement surface	Base—3″ Ocala (limestone) r (compact), given application service station oil which bi base and surface, also prote flux Surface—¼″ sawdust-cushion la composed of Standard Oil F and sawdust
1. *Slope of court — direction and amount* 2. *Location and size of drains*	1. End to end 2. Catch basins at ends of courts	1. 3″ across each court 2. Natural and surface drainage sufficient	1. End to end, 4″ to 120′ 2. None needed, sandy soil
1. *Posts (material)* 2. *Stationary or removable?* 3. *Nets (material)* 4. *Marking used*	1. 4″ x 4″ wooden posts 2. Stationary 3. Heavy net 4. Lime	1. Galv. pipe 2. Removable 3. White No. 9 4. Inlaid white cement	1. Galv. pipe 2. Removable 3. Tarred, 30 thread 4. White paint over coat of shellac
1. *Space per court* 2. *Entirely enclosed?* 3. *Kind of enclosure* 4. *Dimensions of area*	1. 10′ between courts, 18′ from base line to backstop 2. No 3. Backstops; poultry wire; galv. posts; sides open 4. ———	1. 120′ x 54′ 2. Yes 3. Heavy woven wire fencing, wooden posts 4. 120′ x 108′	1. 110′ x 45′ 2. No 3. Galv. wire backstops 10′ hig galv. pipe posts set in concre wings 24′ long at 45 degree an 4. ———
1. *Lighted for night use?* 2. *Miscellaneous equipment*	1. No 2. None	1. No 2. ———	1. Yes; three Cahill duplex proje tors each with 2—1000 watt lam on posts 45′ high. Two posts at center 5′ from net posts outer sides of courts; third po at end of area between cour (used chiefly for basket b played on court surface) 2. Benches on sides
CONSTRUCTION COST	Court construction.....$300.00 Backstops ..... 200.00 Net posts, 2 nets, reels..... 42.00 TOTAL .....$542.00 (High School manual training boys erected backstop)	Excavation .....$ 200.00 Court construction..... 1,860.00 Fence ..... 400.00 TOTAL $2,460.00	Excavation and construction of base.....$ 300. Court construction Material .....$329 Labor ..... 50 379. Backstops ..... 550. Lights ..... 622. Net posts (pipe and reel). 7. TOTAL .....$1,858.
OPERATION *Workers — number, hours, wages, duties*	None, school boys will care for courts	None	Caretaker cleans courts and repai nets; also works on playground
1. *Control of use* 2. *Available only when worker present?* 3. *Use by children restricted?*	1. "First come" 2. Always available 3. No	1. ——— 2. Always available 3. Children use until 3 p.m. daily	1. Limit of one set if players wai ing; six to five limit score ar set; play doubles if players wai ing 2. No 3. Yes; only adults after 7 p.m.
1. *Length of season* 2. *Hours per day* 3. *Play on Sunday?* 4. *Charge for use of courts* 5. *Income*	1. Six months 2. ——— 3. Yes 4. No charge 5. None	1. Five months 2. 12 hours 3. Yes 4. No charge 5. None	1. All year 2. All day 3. Yes 4. No 5. Entrance fee (50c per player) t tournaments is only charge; loser receive two balls used
1. *Number of playing days* 2. *Number of players or permits* 3. *Number of sets or hours*	No records yet	No records yet	1. 365 2. Average 1,500 monthly 3. ———
1. *Courts used for skating?* 2. *Present condition of courts*			1. No 2. Good; according to local recre tion authorities, sawdust-cushio court is much cheaper to co struct and promises to be mor satisfactory than asphalt court- is a fast court, does not boil o hot days, holds paint well, more resilient, is not slippery no as abrasive as is the asphalt cour
OPERATING COST	Courts not yet open for use	No operating costs (completed August, 1928)	Painting lines, three times per year .....$10.0 Net, two each year..... 22.0 TOTAL $32.0

TENNIS COURTS	TAMPA, Florida	UNION COUNTY, Elizabeth, New Jersey
DESCRIPTION		
1. *Location*	1. Playground	1. Warinanco Park (Elizabeth)
2. *Number of courts*	2. Two	2. Ten
3. *Arrangement*	3. Side by side	3. Two sections, end to end; five courts side by side in each
4. *Type of courts*	4. Asphalt	4. Clay
5. *Date built*	5. 1927	5. 1926
CONSTRUCTION *Material used—thickness each layer, surface*	4" Ocala rock (limestone) base Surface, ¼" asphalt, each layer well rolled	8" cinders 4" layer of clay 3" surface layer of clay and sand screened and pulverized
1. *Slope of court — direction and amount*	1. Slope end to end 4" to 120'	1. 3", net to fence
2. *Location and size of drains*	2. Sandy sub-soil provides adequate drainage	2. 4" laterals between each court, 2½' deep; 4" drop inlets opposite center of each court; surface drainage
1. *Posts (material)*	1. Pipe set in concrete collar	1. Iron
2. *Stationary or removable?*	2. Removable	2. Stationary
3. *Nets (material)*	3. Tarred cord	3. Tarred nets
4. *Marking used*	4. Paint	4. Lime
1. *Space per court*	1. 115' x 50'	1. 125' x 39', except side courts
2. *Entirely enclosed?*	2. No	2. Yes
3. *Kind of enclosure*	3. Cyclone fence on each end, (148' long by 10' high), including 24' wings at 45 degree angle; galv. pipe posts set in concrete	3. Anchor Post wire fence
4. *Dimensions of area*	4. ———	4. ———
1. *Lighted for night use?*	1. Yes; two Giant Duplex projectors for each court; light poles 45' high set 5' from each net post	1. No, being planned
2. *Miscellaneous equipment*	2. Wooden benches	2. Park benches, regulation markers, hand roller; stadium serves as shelter
CONSTRUCTION COST	Court construction .....$1,647.50 Backstops ..... 550.00 Lights ..... 622.00 Net posts ..... 7.00 TOTAL .....$2,826.50 (Kentucky Rock asphalt, ¼" layer, cost, 75c sq. yd.)	Sub-grade .....$3,274.35 Drainage ..... 1,757.97 Court construction ..... 8,806.70 Fence ..... 2,524.50 TOTAL $16,363.52
OPERATION *Workers — number, hours, wages, duties*	Caretaker for playground; attends courts, repairs nets	Two men (also mark baseball and athletic fields), one man 10 hrs. at 60c per hr.; one man 8 hrs. at 55c per hr.
1. *Control of use*	1. "First come"; one set when players waiting; play doubles when players waiting	1. Hourly permits, in order of application
2. *Available only when worker present?*	2. No	2. Yes
3. *Use by children restricted?*	3. Only adults after 7 p.m.	3. Only adults after 6 p.m. week days and on Saturday and Sunday
1. *Length of season*	1. Twelve months	1. Six months
2. *Hours per day*	2. Daylight hours	2. Eleven hours
3. *Play on Sunday?*	3. Yes	3. Yes
4. *Charge for use of courts*	4. No charge	4. No charge
5. *Income*	5. None	5. None
1. *Number of playing days*	1. 365 days	1. 199
2. *Number of players or permits*	2. Average 1,500 monthly	2. 23,681 (1928)
3. *Number of sets or hours*	3. ———	3. No record
1. *Courts used for skating?*	1. No	1. No
2. *Present condition of courts*	2. Good	2. Very good
OPERATING COST	Painting lines three times per season .....$10 Two nets, annually..... 22 TOTAL $32	Wages $2,170.80



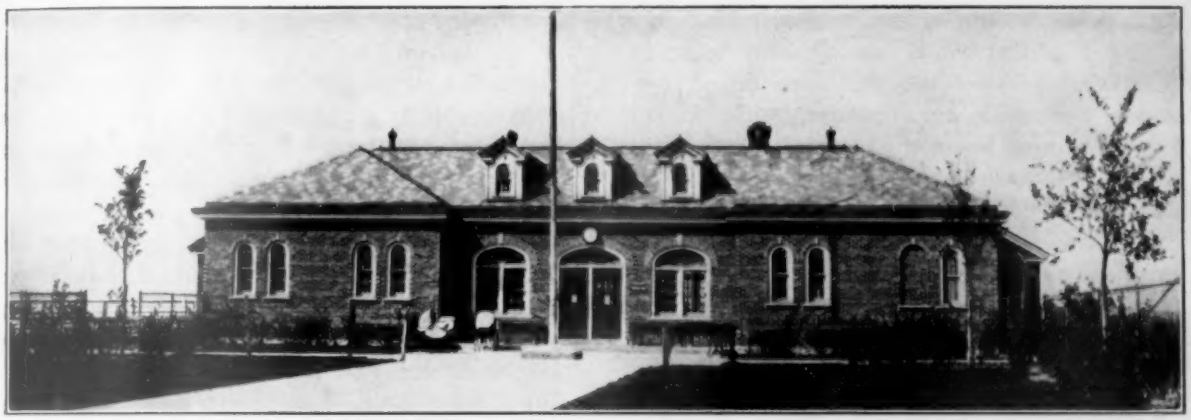
First Floor Plan of Field House, Circus Playground, Milwaukee, Wisconsin

(Designed by Department of Public Works)

The showers and lockers, assembly room and check room suggest the possibilities for indoor recreational activities in addition to shelter and comfort accommodations.

(See illustration on Page 329 and special report on Page 332)

Field Houses



FIELD HOUSE, CIRCUS PLAYGROUND, MILWAUKEE, WISCONSIN

A substantial, attractive structure which serves both as a playground shelter and a neighborhood recreation center. Use of the building is administered by the Extension Department, Milwaukee Public Schools. See plan of this building on Page 328; also a report of its construction and operation on Page 332.

With one exception, the field houses for which reports are given have been constructed since 1927, and most of them are located on or near playgrounds. A majority of the buildings consist of a basement or ground floor and one main floor. Substantial materials have been used, foundations being of concrete, exterior walls of stucco or brick, and roofs of asbestos shingles. The indoor construction is equally durable insuring a minimum of expense for upkeep and maintenance.

These field houses offer considerable variety from the standpoint of the facilities provided, although in many of them the general arrangement of rooms is similar. Generally there is one main room—auditorium, gymnasium, or major club room—located in the center of the building with toilet, locker and shower rooms on the sides. These special accommodations for the two sexes are placed on opposite sides, and occasionally toward the rear of the building. Position of entrances in relation to the central room, to supply rooms and director's rooms, are such as to afford ready oversight by staff workers in the normal course of their duties.

Generally speaking, the various rooms for games and other indoor recreation activities are located on the same level, usually the main floor. Where considerable space is allotted to rooms of this type, most of the other facilities such as showers, lockers and dressing rooms are placed in the basement. Such is the arrangement in both field houses at Cambridge, Massachusetts, and in most of the buildings in Milwaukee, Wisconsin. Men's and women's toilets are provided both on the main floor and in the basement of the field house in Rindge Park, Cambridge. The building at Circus Playground, Milwaukee, a plan of which is shown on Page 328, has the girls' lockers and showers on the first floor and those for boys in the basement. Dressing rooms for boys and girls but no showers are contained in the Ohio Avenue Playground field house, Milwaukee. A combined assembly room and gymnasium adequate to accommodate basketball games is provided in the Green Lake Playfield building, Seattle, Washington. It also contains other important features for recreation uses as illustrated by the reproduced plans to be found at the close of this section. Usually the buildings provide on the main floor extra utility space for checking, storage of game supplies and equipment, and general work room accommodations.

The several Milwaukee field houses for which reports are included suggest the extent to which larger cities are providing such buildings in different neighborhoods. Undoubtedly the individual buildings are designed to accommodate the needs existing in different sections. The planning of such buildings for the simultaneous carrying on of a variety of activities is important. Associated with these considerations also are such factors as the number and variety of recreation areas and facilities immediately adjacent to the field house. For example, the Carroll Park building, Baltimore, Maryland, is intended primarily to serve the bath house needs of those patronizing the nearby wading-swimming pool

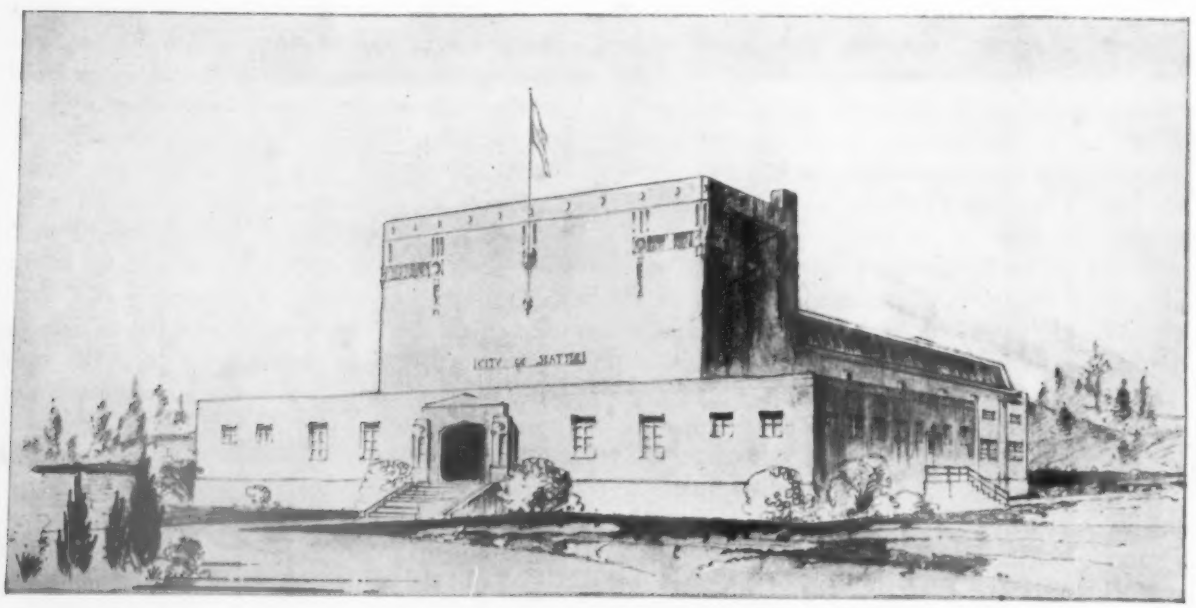
(See illustration on Page 329 and special report on Page 332)

and the athletic groups using the various game areas. The interior of this particular building is arranged so that those desiring bath house accommodations may use the first floor where towels and suits are available, while athletic teams are cared for in the basement—entering by way of toilets directly to the basement. In this way neither group is disturbed, each can be accommodated simultaneously, and the problem of supervision is comparatively simple. Additional points to be considered in the erection of field houses such as supervision, circulation and upkeep are discussed in the *Park Manual,* Volume One, Pages 397, 398 and 399. Helpful information regarding the functions of such buildings and their relation to various play areas is contained in *Play Areas,* Pages 33, 96, 97, 118 and 137.

Without exception, the field houses reported are operated throughout the year. Those providing indoor recreation advantages for adults are open as a rule until ten or eleven o'clock at night on week days and until midnight on Saturdays and holidays.

The nature and amount of the supervision required is determined largely by the extent to which play and recreation activities are provided in the building. Since recreation programs are conducted in most of the field houses, there is usually a full time director for men and one for women, with substitutes and other helpers as needed during the summer months. There is also one caretaker or janitor. This general arrangement prevails in the Cambridge, Seattle and San Francisco buildings. For certain other buildings where the problem is largely one of supervising showers, lockers and toilets a minimum staff of the caretaking type is sufficient. Supervision of this nature may be adequate even for certain kinds of recreation activities calling for partial or irregular use of the building. For example, the field houses in Milwaukee accommodate ice skaters without the necessity of special workers.

Since most of the buildings have not yet been operated a full year, statements of operating expense and of attendance are not available. This loss is compensated at least in part by having buildings of most recent construction, cost items for which approximate very closely present prices of labor and materials.

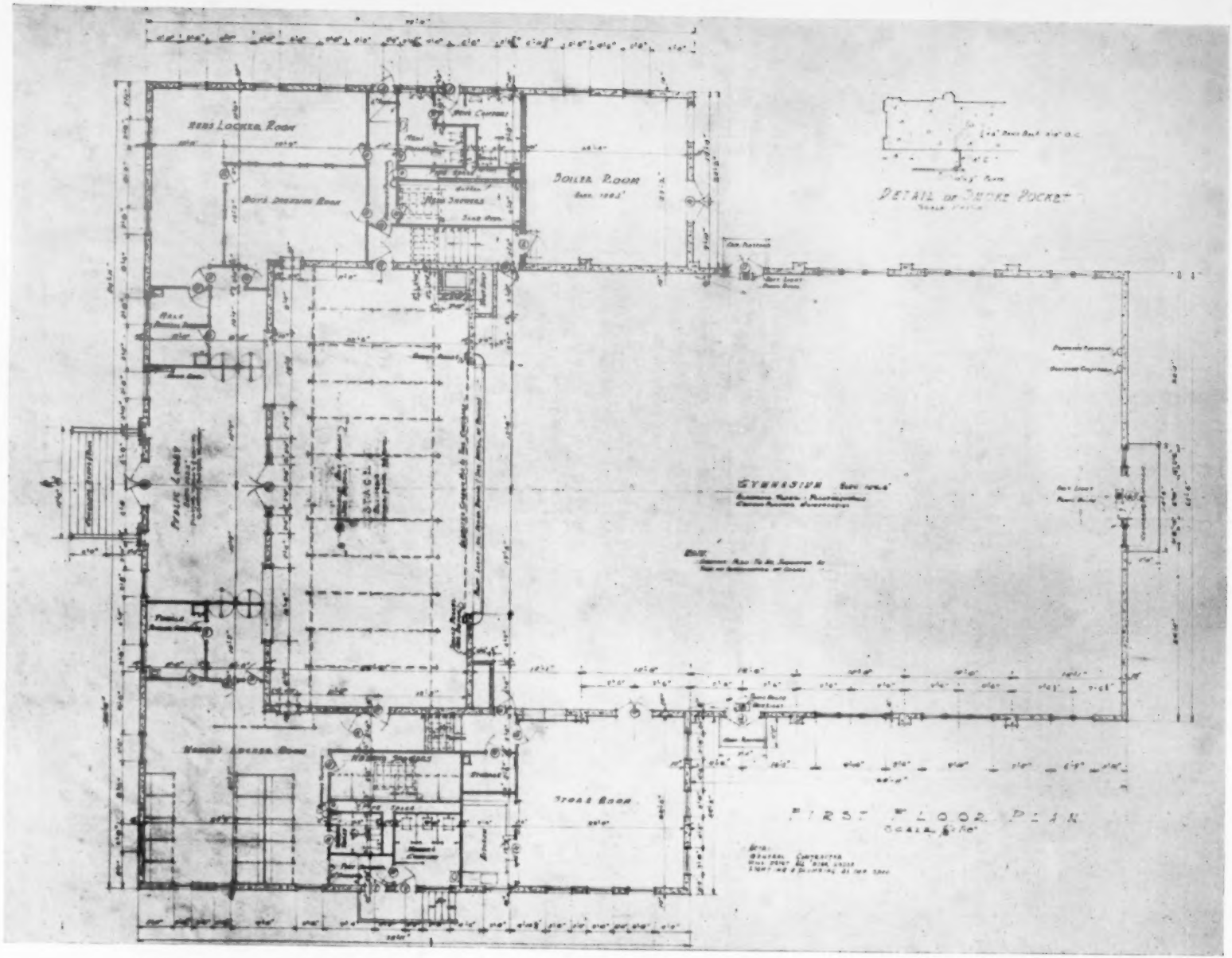


FRONT ELEVATION OF FIELD HOUSE AT GREEN LAKE PLAYFIELD, DEPARTMENT OF PARKS, SEATTLE, WASHINGTON
A building of appropriate and attractive design which serves both as a field house and bath house. The wide range of recreation activities which it affords is indicated by the main floor plan on Page 334 and by the report to be found on Page 335.

FIELD HOUSES DESCRIPTION	BALTIMORE, Maryland	CAMBRIDGE, Massachusetts	CAMBRIDGE, Massachusetts
1. *Location*	1. Carroll Park, adjacent to athletic field, wading-swimming pool and playground	1. Corporal Burns Playfield	1. Rindge Park
2. *Date built*	2. 1927	2. 1928	2. 1928
3. *Dimensions—length, width, height*	3. 106′ x 45′; one story and basement	3. 60′ 6″ x 30′ 6″; one and one-half stories	3. 109′ on one side; 91′ on other side x 73′ 3″ wide; one and a half stories
Materials used in construction	Foundation—concrete Exterior walls—stucco Interior walls—plaster and cement Roof—asphalt shingles Inside trim—concrete-plaster; steel sash Lobby—concrete floor Toilet and shower rooms—concrete floors	Foundation—concrete Exterior walls—brick Interior walls—lime brick Roof—asbestos shingles Inside trim—wood Toilets—plaster and slate partitions Shower rooms—brick walls, slate partitions Toilet and shower rooms—concrete floors Recreation room—hard maple floor Lobby—concrete floor	Foundation—concrete Exterior walls—brick Interior walls—brick Roof—asbestos shingles Inside trim—wood Toilets—brick walls; slate partitions Shower rooms—white brick walls; slate partitions Toilet and shower rooms—concrete floors, granolithic finish Lobby—hard maple floors Recreation rooms—hard maple floors
1. *Rooms and facilities*	1. Main floor— Porch—20′ x 9′ Lobby—20′ x 14′; ticket booth Boys′ and Girls′ shower rooms—20′ x 11′; 3 showers each Boys′ and Girls′ locker rooms—53′ x 40′; 500 lockers each Men's toilet—21′ x 6′ 6″—3 toilets, 3 urinals, 3 lavatories (outside entrance) Women's toilet—21′ x 6′ 6″—3 toilets, 3 lavatories (outside entrance) Storage room—21′ x 6′ 6″ Basement— Boys′ shower room—20′ x 16′, 2 toilets, 2 urinals, 3 showers Boys′ locker room—32′ x 16′, 125 lockers Girls′ shower room—23′ x 16′, 2 toilets, 3 showers Girls′ locker room—20′ x 20′, 125 lockers Boiler and coal room—20′ x 19′ Storage room—19′ x 18′	1. Main floor— Assembly room—60′ 6″ x 30′ 6″, piano, chairs Ground floor— Women's shower room—15′ 6″ x 7′, 5 showers Women's toilet—15′ 6″ x 8′ 9″, 4 toilets, 2 lavatories, 1 sink Men's shower room—12′ 6″ x 11′—8 showers Men's toilet—12′ 4″ x 5′ 8″, 2 toilets, 3 lavatories Women's locker room—18′ 6″ x 7′ 6″ Men's locker room—18′ 6″ x 9′ Boiler room—14′ 10″ x 7′ 9″ Rubbing room—16′ 6″ x 7′ 6″ Supply room—18′ 6″ x 5′ 6″ Vestibule—18′ 6″ x 9′	1. Main floor— Two offices, each 11′ x 9′ Men's recreation room—33′ 10″ x 18′ 6″—tables, chairs Women's recreation room—30′ x 18′ 6″—tables, chairs Gymnasium—70′ x 50′, to be used as auditorium Squash court—32′ x 18′ 6″ Men's toilet—12′ x 8′ 7″, toilet, urinal, 2 lavatories Women's toilet—12′ x 8′ 7″, 2 toilets, 2 lavatories Ground floor— Superintendent's room—33′ x 8′ 6″ Boys′ toilet—12′ x 11′, 7 toilets, urinal, 4 lavatories Girls′ toilet—12′ x 11′, 4 toilets, 2 lavatories Men's toilet—12′ x 11′, 4 toilets, urinal, 2 lavatories, 1 sink Men's shower and locker room—48′ x 18′ 6″; 24 showers Women's toilet—12′ x 11′, 3 toilets, 2 lavatories Women's shower and locker room—29′ 4″ x 18′ 6″; 25 lockers, 6 dressing booths Boiler room—18′ 6″ x 16′ Two storage rooms—48′ x 23′; 40′ x 27′ Supply room—18′ x 7′
2. *Lighting*	2. 150 watt lights used throughout.	2. Electricity	2. Electricity
CONSTRUCTION COST	TOTAL .....$48,676.28 (Items not segregated from general Park construction account)	Excavating and grading..$ 986.00 Foundation ..... 991.00 Building ..... 7,356.00 Roof ..... 900.00 Inside trim, floors and plaster ..... 2,315.00 Heating system ..... 3,110.00 Water and plumbing..... 3,999.00 Lighting ..... 247.00 Lockers ..... 301.15 Other equipment ..... 32.00 Architect ..... 1,500.00 TOTAL .....$21,737.15 (Labor cost for first five items was $5,564.57, which is included in above figures).	Excavation .....$ 800.00 Foundation ..... 4,099.00 Building ..... 37,429.00 Roof ..... 3,100.00 Heating system ..... 9,892.00 Water and plumbing..... 9,200.00 Lighting ..... 1,500.00 Lockers ..... 669.54 Other equipment ..... 1,009.00 Architect ..... 4,000.00 TOTAL .....$71,689.54 (Grading cost not included)
OPERATION AND MAINTENANCE			
1. *Building used year round?*	1. Yes	1. Yes	1. Yes
2. *Hours open*	2. 7 a.m.—11 p.m.	2. 9 a.m.—10 p.m.	2. 9 a.m.—10 p.m.
3. *Workers employed*	3. Woman, general supervisor and locker attendant, $14 per wk. Two men, attend lockers and building; each, $19.20 per wk.	3. Director—year round—$5 per day Man and woman for ten weeks in summer,—$4 per day, each; also conduct playground activities Woman—year round—$21 per wk.; supervises girls' work Man—year round—$40 per wk., janitor and field caretaker. Additional workers expected to be employed	3. Director of activities year round, $5 per day Caretaker and janitor, year round, $40 per wk. Woman supervisor, year round, $21 per wk. Man, ten wks. (summer), $4 per day; directs activities Woman, ten wks. (summer), $4 per day; directs activities Additional workers expected to be employed.
1. *Activities conducted*	1. No game activities in building	1. Quiet games, dancing, dramatics, handcraft	1. Basket ball, squash, handball, dancing, dramatics, handcraft
2. *Charge for use of facilities?*	2. Yes; 5c per person for use of shower, locker, towel, soap and bathing suit	2. None	2. None
3. *Is admission charged to activities?*	3. No	3. No	3. No
4. *Source of funds for operation*	4. Park funds	4. Park funds	4. Park funds
5. *Attendance*	5. 11,341 individual charges for use of building facilities	5. Building just opened	5. First year building in use
FINANCIAL STATEMENT *Expenditures*	1928 Payroll .....$1,865.97 (One worker employed entire year; two for latter half, and three at end of year. Other items of operating expense not segregated from general Park accounts.)	Operating cost still undetermined	Full year of operation not yet completed
Receipts	From use of facilities.....$567.05	There will be no revenue from admissions or use of facilities.	No revenue from admissions or use of facilities

FIELD HOUSES	MILWAUKEE, Wisconsin	MILWAUKEE, Wisconsin	MILWAUKEE, Wisconsin
DESCRIPTION			
1. *Location*	1. Burnham Street and 28th Ave.	1. Circus Playground	1. Holt Avenue Playground, new wading pool
2. *Date built*	2. 1928	2. 1928	2. 1928
3. *Dimensions—length, width, height*	3. 56′ 2″ x 56′ 2″; one story and basement	3. 80′ x 34′; one story and basement	3. 48′ x 31′; one story and basement
Materials used in construction	Foundation—concrete piles 25′ long (marshy ground) Exterior walls—brick Roof—asbestos shingles Toilets—marble partitions Shower room—brick Toilet and shower rooms—tile floors in toilets; concrete in shower room Recreation room—concrete floor Lobby—Concrete floor	Foundation—concrete Exterior walls—brick Roof—asbestos shingles Toilets—marble partitions Shower rooms—metal Toilet and shower rooms—tile floors in toilet; concrete in shower rooms Lobby—concrete floor Recreation room—concrete floor	Foundation—concrete Exterior walls—brick Roof—asbestos shingles Toilets—marble partitions; tile floor Recreation room—concrete floor Lobby—concrete floor
1. *Rooms and facilities*	1. Main floor— Assembly room—53′ x 32′ to 25′; two drinking fountains Porch—35′ x 7′ 1″ Two porches—15′ x 7′ 1″ each Check room—20′ 6″ x 17′ 10″ Girls' toilet—15′ 6″ x 11′ 2″; 4 toilets, 3 lavatories, mirror (outside entrance) Boys' toilet—15′ 6″ x 11′ 2″; 4 toilets, 4 urinals, 2 lavatories (outside entrance) Two utility closets—9′ 6″ x 2′, 11′ x 2′ Basement— Shower room—24′ 2″ x 10′; 6 showers, 1 sink Locker room—42′ 6″ x 12′ 1″ Store room—42′ 6″ x 12′ 1″ Work room—13′ 6″ x 11′ 1″ Umpire's room—6′ 3″ x 5′ Boiler room—15′ 6″ x 11′ Transformer room—10′ 2″ x 6′ Toilet—13′ x 6′ 3″; toilet, lavatory, urinal	1. Main floor— Assembly room—30′ x 25′; two drinking fountains Office—12′ 6″ x 10′ 11″; lavatory Two porches—46′ x 8′, 30′ x 5′ Check room—22′ 6″ x 18′ Boys' toilet—13′ 1″ x 10′ 7″; 4 toilets, 2 urinals, 2 lavatories (outside entrance) Girls' toilet—12′ 10″ x 8′ 8″; 4 toilets, 2 lavatories (outside entrance) Girls' locker and shower room—13′ 11″ x 13′ 3″; 3 showers, 3 benches Utility closet—12′ 6″ x 2′ Basement— Boys' shower room—12′ 10″ x 10′ 6″; 4 showers, lavatory, urinal Boys' locker room—22′ x 17′ 11″ Three store rooms—29′ 9″ x 12′, 19′ x 12′, 13′ 9″ x 13′ 2″ Work room—12′ 9″ x 10′ 10″ Tool room—12′ 9″ x 8′ 7″ Tool closet—12′ 9″ x 1′ 10″ Transformer room—10′ 6″ x 5′ 6″ Boiler room—12′ x 10′	1. Main floor— Assembly room—23′ x 21′ 1″ Two porches—20′ 4″ x 8′ 6″ each Porch—12′ x 5′ Check room—14′ x 10′ 8″ Boys' toilet—10′ 5″ x 9′ 3″; toilets, 2 urinals, 1 lavatory mirror, (outside entrance) Girls' toilet—9′ 3″ x 8′ 9″ 3 toilets, 1 lavatory, mirror (outside entrance) Two utility closets—10′ x 2′ 8′ x 2′ Basement— Work room—11′ 6″ x 6′ 5″ Transformer room—9′6″ x 7′6 Boys' dressing room—9′ x 7′ 6 Girls' dressing room—12′ x 8′ Store room—32′ x 21′ to 24′ Boiler room
2. *Lighting*	2. Electricity	2. Electricity	2. Electricity
CONSTRUCTION COST	Excavation, concrete and brick work .....$21,301.00 Carpenter work and hardware ..... 5,297.00 Cut stone, marble, lathing and plastering ..... 398.00 Steel and iron work (including flag pole)..... 1,568.00 Painting and glazing..... 395.00 Sheet metal and asbestos shingles ..... 1,483.00 Plumbing ..... 3,456.00 Heating, including oil burner ..... 2,314.00 TOTAL .....$36,212.00 (Increased cost of excavation and concrete work, due to marshy land necessitating use of piles as foundation.)	Excavation, concrete and brick work .....$12,754.00 Carpenter work and hardware ..... 4,590.00 Cut stone, tile and marble 1,753.00 Steel and iron wk. including flag pole..... 724.00 Painting and glazing..... 540.00 Sheet metal and asbestos shingles ..... 1,672.00 Plumbing ..... 3,198.00 Heating ..... 1,615.00 Oil burner ..... 560.00 Lathing and plastering... 651.00 TOTAL $28,057.00	Excavation, concrete and brick work .....$13,390.00 Carpenter work and hardware ..... 3,070.00 Cut stone and marble..... 540.00 Steel and iron wk. (including flag pole)..... 1,017.00 Painting and glazing..... 387.00 Sheet metal and asbestos shingles ..... 656.00 Plumbing ..... 4,120.00 Heating (not including boiler) ..... 719.00 Lathing and plastering.... 287.00 TOTAL $24,186.00
OPERATION AND MAINTENANCE			
1. *Building used year round?*	1. Yes	1. Yes	1. Yes
2. *Hours open*	2. ———	2. ———	2. ———
3. *Workers employed*	3. Playground custodian serves as janitor Skate checker on skating days, 3—10 p.m., all day Saturday and Sunday, 40c per hr.	3. Playground custodian serves as janitor; Skate checker on skating days, 3-10 p.m. weekdays, all day Saturday and Sunday, 40c per hr.	3. Playground custodian serves as janitor; Skate checker on skating days 3—10 p.m., all day Saturday and Sunday, 40c per hr.
1. *Activities conducted*	1. Athletic Club's business meetings, shoe checking and warming room in skating season	1. Meeting place for 35th St. Advancement Association, Child Health Station, Athletic Club's business meetings, shoe checking and warming room in skating season	1. ———
2. *Charge for use of facilities?*	2. Yes; 5c for checking shoes in skating season, 5c for towel and soap in showers	2. Yes; 5c for checking shoes in skating season, 5c for towel and soap in showers	2. Yes; 5c for checking shoes in skating season
3. *Is admission charged to activities?*	3. ———	3. ———	3. ———
4. *Source of funds for operation*	4. ———	4. ———	4. ———
5. *Attendance*	5. No record yet	5. No record yet	5. No record yet
FINANCIAL STATEMENT			
Expenditures	Full year of operation not yet completed	Full year of operation not yet completed	Full year of operation not yet completed
Receipts	Full year of operation not yet completed	Full year of operation not yet completed	Full year of operation not yet completed

FIELD HOUSES DESCRIPTION	MILWAUKEE, Wisconsin	MILWAUKEE, Wisconsin	MOLINE, Illinois
1. *Location*	1. Ohio Avenue Playground, near wading pool and skating rink	1. Pryor Avenue and Seeley Street	1. ———
2. *Date built*	2. 1928	2. 1928	2. 1928
3. *Dimensions—length, width, height*	3. 48′ 4″ x 31′; one story and basement	3. 47′ 3″ x 36′ 10″; one story and basement	3. 200′ x 150′; one story, balcony and basement
Materials used in construction	Foundation—concrete Exterior walls—brick Roof—asbestos shingles Toilets—marble partitions; tile floors Recreation room—concrete floor Lobby—concrete floor	Foundation—concrete Exterior walls—brick Roof—asbestos shingles Toilets—marble partitions Shower rooms—metal Toilet and shower rooms—tile floors Recreation room—concrete floor Lobby—concrete floor	Foundation—concrete Exterior walls—brick and tile Interior walls—glazed tile Roof—2″ sheathing, 1″ celotex, composition shingles Inside trim—yellow pine Toilets—glazed tile wall; concrete floor Showers—glazed tile wall; concrete floor Lobby—concrete floor
1. *Rooms and facilities*	1. Main floor— Assembly room—24′ 3″ x 21′ 1″ Two open porches—20′ 4″ x 6′ 6″ each Check room—12′ x 9′ 5″ Girls′ toilet—9′ 3″ x 9′, three toilets, 1 lavatory (outside entrance) Boys′ toilet—10′ x 9′ 3″, two toilets, urinal, lavatory (outside entrance) Two utility closets—9′ x 2′, 5′ 6″ x 2′ Basement— Girls′ dressing room—11′ 8″ x 8′ 10″ Boys′ dressing room—11′ 6″ x 9′ 10″ Work room—11′ 8″ x 9′ 2″ Boiler room—11′ 6″ x 7′ 6″ Two store rooms—24′ x 10′, 10′ x 8′ 6″	1. Main floor— Assembly room—25′ x 22′ 11″ Two porches—11′ x 6′ 4″ each; drinking fountain near each porch Girls′ toilet—16′ x 7′ 8″; three toilets, lavatory Boys′ toilet—11′ x 10′ to 7′ 8″; two toilets, two urinals, lavatory Two utility closets—10′ x 2′, 6′ x 2′ Basement— Shower room—10′ 9″ x 10′ 2″ Three showers, sink, urinal Locker room—29′ x 11′ 50 lockers, drinking fountain Work room—20′ x 11′ Boiler room	1. Main floor— Lobby—27′ 8″ x 18′ 6″ (ticket booth) Lobby—24′ 1″ x 14′ 9″ Lobby—28′ 5″ x 21′ 1″ (ticket booth) Room and ticket office—39′ x 16′ 9″ Manager′s office—12′ 9″ x 10′ Ticket office—7′ x 3′ 4″ Coach′s office—12′ 9″ x 10′ Office—12′ x 9′ Shower room—7′ x 6′ 1″ Central floor—100′ x 70′ Playing floor—80′ x 50′ Balcony— Two ladies′ rest rooms—25′ 2″ x 13′ Two ladies′ toilet rooms—13′ 2″ x 13′ Store room—38′ x 20′ 4″ Basement— Coal bin—20′ 9″ x 14′ 10″ Boiler room—39′ 10″ x 22′ 2″
2. *Lighting*	2. Electricity	2. Electricity	2. Main room—18—1,000 watt lights Balcony—70—200 watt lights
CONSTRUCTION COST	Excavation, concrete and brick work ..... $11,000.00 Carpenter work and hardware ..... 3,088.00 Cut stone and marble .... 1,287.00 Steel and iron work (including flag pole) ..... 864.00 Painting and glazing ..... 300.00 Sheet metal and asbestos shingles ..... 640.00 Plumbing ..... 2,098.00 Heating ..... 760.00 Lathing and plastering ... 410.00 Oil burner ..... 350.00 House lights ..... 680.00 TOTAL $21,477.00	Excavation, concrete and brick work ..... $ 7,646.00 Carpenter work and hardware ..... 2,990.00 Cut stone ..... 354.00 Tile and marble ..... 1,145.00 Steel and iron work (including flag pole) .... 780.00 Painting and glazing ..... 350.00 Sheet metal and asbestos shingles ..... 707.00 Plumbing ..... 2,700.00 Heating ..... 865.00 Lathing and plastering .... 405.00 Oil burner ..... 538.00 TOTAL $18,480.00	Excavating and grading .. $ 9,609.00 Foundation ..... 16,986.00 Building construction .... 90,517.00 Roof ..... 12,343.00 Heating system ..... 16,000.00 Plumbing and water ..... 8,365.00 Lighting ..... 6,318.00 Lockers ..... 900.00 Oil burner ..... 425.00 Other equipment ..... 1,100.00 Architect ..... 7,500.00 Miscellaneous ..... 5,981.00 TOTAL ..... $176,044.00 Financed by private association (incorporated), which issued $150,000 of 5% bonds, purchased by local citizens. Bonds mature in twenty years, and property when paid for, to be deeded to Board of Education of Moline
OPERATION AND MAINTENANCE			
1. *Building used year round?* 2. *Hours open*	1. Yes 2. ———	1. Yes 2. ———	1. It will be 2. Schedule of hours not yet determined
3. *Workers employed*	3. Playground custodian serves as janitor Skate checker on skating days, 3 to 10 p.m., all day Saturday and Sunday, 40c per hr.	3. Playground custodian serves as janitor Skate checker on skating days, 3 to 10 p.m., all day Saturday and Sunday, 40c per hr.	3. Two general caretakers; one only required in summer
1. *Activities conducted*	1. ———	1. ———	1. Building being used chiefly by High School teams but other community groups can be served
2. *Charge for use of facilities?*	2. Yes; 5c for checking shoes in skating season	2. Yes; 5c for checking shoes in skating season; 5c for towel and soap in showers	2. Charge will be made for admission and for use of facilities under certain circumstances. Policy not fully developed
3. *Is admission charged to activities?*	3. ———	3. ———	3. See above
4. *Source of funds for operation*	4. ———	4. ———	4. Board of Education
5. *Attendance*	5. No record yet	5. No record yet	5. Building just opened for use
FINANCIAL STATEMENT *Expenditures*	Full year of operation not yet completed	Full year of operation not yet completed	Maintenance cost to be met by Moline High School
Receipts	Full year of operation not yet completed	Full year of operation not yet completed	Receipts will go to bondholders



First Floor Plan of Field House at Green Lake Playfield, Department of Parks, Seattle, Washington
Note the different facilities for recreational uses by community groups, especially the stage and the combined auditorium and gymnasium which is sufficiently large to accommodate basketball games. (See report on Page 335)

FIELD HOUSES DESCRIPTION	SAN FRANCISCO, California	SEATTLE, Washington
1. *Location*	1. Excelsior Playground	1. Green Lake Playfield
2. *Date built*	2. 1928	2. 1929
3. *Dimensions—length, width, height*	3. 82′ x 35′; one and one-half stories	3. 136′ x 110′; two stories
Materials used in construction	Foundation—reenforced concrete Exterior walls—stucco Interior walls—tongue and groove pine Roof—asbestos, cement shingles Inside trim—pine Toilets—walls, pine Shower rooms—walls, cement Toilet and shower rooms—concrete floors Recreation room—pine floor 1½″ of No. 1 V. G.	Foundation—fir piling, concrete caps Exterior walls—stucco over concrete Interior walls—plaster Roof—asbestos roofing on concrete slab Inside trim—metal and wood Toilet and shower rooms—steel partitions; concrete floors Recreation room—concrete floor Lobby—concrete floor
1. *Rooms and facilities*	1. Main floor— Auditorium with stage—50′ x 24′; fireplace, benches, piano, game tables, curtains for stage Men directors' room—16′ x 9′ Women directors' room—16′ x 13′ Boys' lavatory and showers—16′ x 9′; 2 toilets, urinal, 2 showers (outside entrance) Girls' lavatory and showers—16′ x 9′; 3 toilets, 2 showers (outside entrance) Kitchen—16′ x 12′; sink, two-hole gas plate, two supply lockers, 2 portable screens Caretaker's room—19′ x 18′	1. Main floor— Two director's offices 10′ 7″ x 8′ Stage—61′ 6″ x 27′ 2″ Two shower rooms—16′ x 6′ 6″ Store room—23′ 2″ x 23′ Two locker rooms—26′ x 24′ Gymnasium—90′ x 61′ 6″ Kitchen—12′ 4″ x 7′ 6″ Two comfort rooms—17′ x 12′ 4″ (outside entrance) Boiler room—23′ 2″ x 22′ 6″ Second floor— Two offices—8′ 6″ x 7′ Two social rooms—42′ x 24′ Kitchen—14′ x 8′ 6″
2. *Lighting*	2. Overhead lighting	2. 110-220 A. C.; gymnasium—12 pendants of 450 watts each, 26′ from floor, controlled at stage switch board. Other fixtures, marine type with local control
CONSTRUCTION COST	Excavation, grading and building materials $6,318.00 Labor ..... 4,212.00 $10,530.00 Roof— Materials .... 300.00 Labor ..... 200.00 500.00 Water & plumbing— Materials .... 877.00 Labor ..... 585.00 1,462.00 Lighting— Materials .... 190.00 Labor ..... 125.00 315.00 TOTAL $12,807.00	Building .....$64,000.00 Heating system ..... 14,000.00 Water and plumbing..... 8,000.00 Lighting ..... 5,000.00 TOTAL $91,000.00
OPERATION AND MAINTENANCE		
1. *Building used year round?*	1. Yes	1. Yes; nine months as field house; three months as bath house
2. *Hours open*	2. Morning and afternoon daily; two evenings weekly	2. 2—10 p.m., Monday—Friday; 10 a.m.—6 p.m. Saturdays, 8 p.m.—12 p.m. (social)
3. *Workers employed*	3. Woman director, 12 mos. at $110 per mo., 6 hours per day; girls' activities Man director, 12 mos. at $110 per mo., 6 hours per day; boys' activities Janitor, 12 mos. at $150 per mo., 8 hours per day; attends building and grounds	3. Playground instructor, $150 per mo., 8 hours per day in charge Playground instructress, $135 per mo., 8 hours per day, girls' work Playground leader, $75 per mo., part time, special activities Desk attendant, $50 per mo., 8 hours per day, office work Two janitors
1. *Activities conducted*	1. Folk dancing, adult and children's groups: dramatics, gymnasium classes, handcraft work, boys', girls' and mothers' clubs	1. Gymnasium classes for men, boys, women and girls Basketball, volley ball, indoor hockey, handcraft, dances, parties, dramatics, music
2. *Charge for use of facilities?*	2. No	2. Towel rental and special dances
3. *Is admission charged to activities?*	3. No	3. Dramatic productions and dances
4. *Source of funds for operation*	4. Tax levy	4. Park Board funds
5. *Attendance*	5. Average weekly attendance—club meetings ..... 55 Play rehearsals .....272 Spectators 110	5. Building under construction (February 8, 1929)
FINANCIAL STATEMENT *Expenditures*	Supervision .....$2,640.00 Janitor service ..... 1,800.00 Light and gas ..... 18.00 Water ..... 174.00 Supplies ..... 54.00 TOTAL $4,686.00	$8,000 per annum (estimated)
Receipts	No receipts	Admissions to dramatic programs, $100 per annum (estimated)

Note the different facilities for recreational uses by community groups, especially the stage and the combined auditorium and gymnasium which is sufficiently large to accommodate basketball games. (See report on Page 335)

Playground Shelters

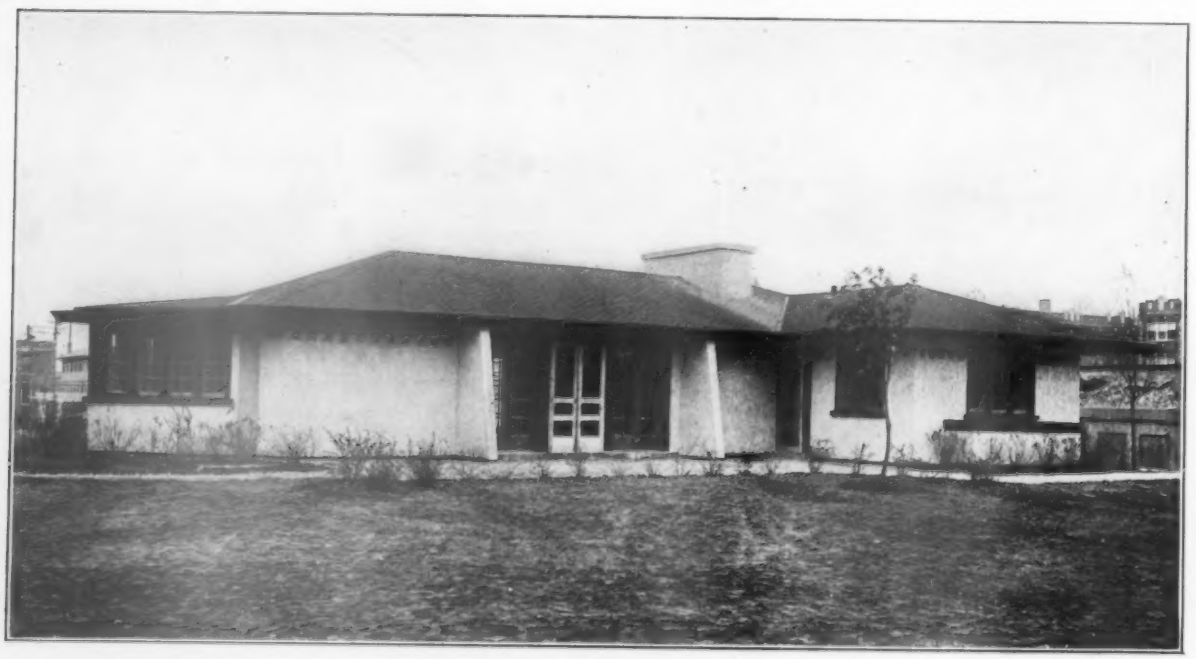
The shelter houses listed are located in parks and on other areas, principally separate playgrounds. With one or two exceptions, the buildings have been constructed since 1924. Durable materials have been used—foundations being of concrete, walls of brick or stucco, and slate, tile or asbestos roofing. Most of the structures are of attractive design.

The extent to which shelters of recent construction provide for indoor recreational activities is worthy of special mention. For example, most of them have either an assembly, or special recreation rooms for use by various groups. An office or caretaker's room and space for storing recreation equipment and supplies are generally provided. In one or more instances there is a refectory or kitchen, drinking fountain, pergola or pavilion. One building is equipped with a limited number of showers and lockers. From the standpoint of facilities provided, some of the shelter houses are in reality field houses and might properly be listed in that group. The majority of the shelters are heated and lighted, particularly those with rooms for indoor activities. With one exception, the buildings have outside entrances to toilets, an important provision which avoids the necessity of going through other parts of the building. In one instance a special ladies' rest room is included in addition to the regular toilet section.

The shelter house located on Robert Louis Stevenson Playground, Oak Park, Illinois, provides a number of the facilities which accommodate social and recreation needs. The building on Watts Playground, Los Angeles, California, illustrates the type of structure which offers primarily shelter and comfort facilities. Plans and illustrations of these buildings appear throughout this section.

It is particularly important to give consideration to the facilities which a proposed shelter house is to contain, for the general plan of the building, its cost of construction and maintenance will be directly affected thereby. As the reports indicate, the cost of constructing a number of the shelters ranges from $5,000 to $6,000. In general, the buildings of this class provide for such minimum requirements as office or caretaker's room, supply room, shelter and comfort needs only. With the addition of assembly room, game rooms, or other special facilities the cost of construction increases proportionately. The general design and quality of construction materials are additional factors affecting total cost.

Operating cost statements for the shelter house group are quite incomplete, either because buildings have just been opened or expense items are not segregated from the operating expenses of other park and recreation facilities. The method of supervising the various buildings is rather uni-



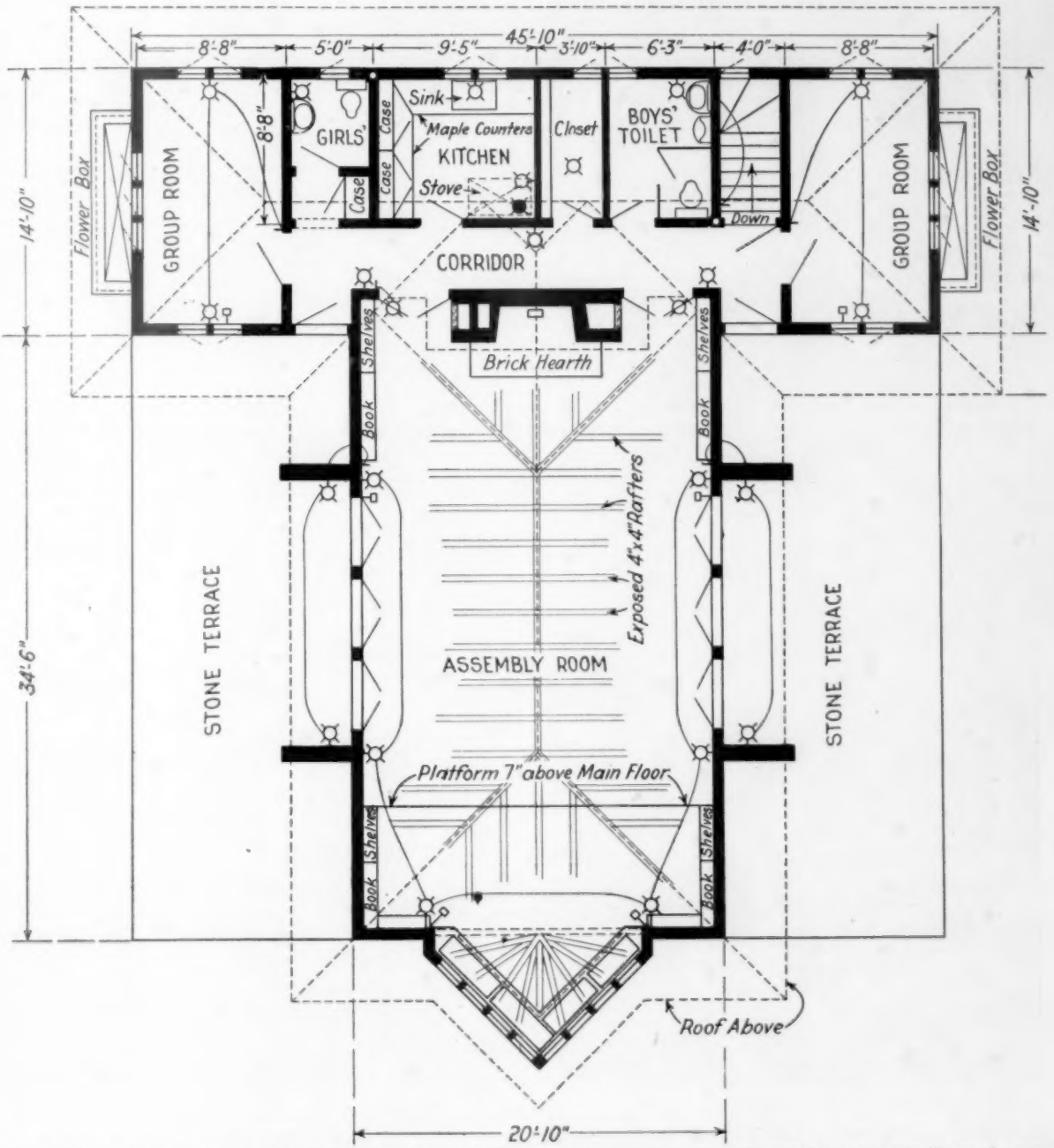
SHELTER HOUSE, ROBERT LOUIS STEVENSON PLAYGROUND, PLAYGROUND BOARD, OAK PARK, ILLINOIS

The general appearance of this serviceable building will be further enhanced with the growth of the trees and shrubs.

See floor plan on Page 337 and report on Page 341.

form. Usually there is a dual arrangement whereby the park or playground caretaker is responsible for the cleaning and upkeep of the building while the regular playground staff provides the supervision. In such cases the expense of supervising is not charged against the building but is absorbed in the general expenses of operating the playground. A charge is most frequently shown for the caretaker's service, the item being an estimate based on his daily or monthly rate for the time actually devoted to shelter house duties. Obviously, as the uses of the building are extended to include indoor recreation features for groups other than children, the cost of supervision increases although charges for such service are not fully shown in the expense statement.

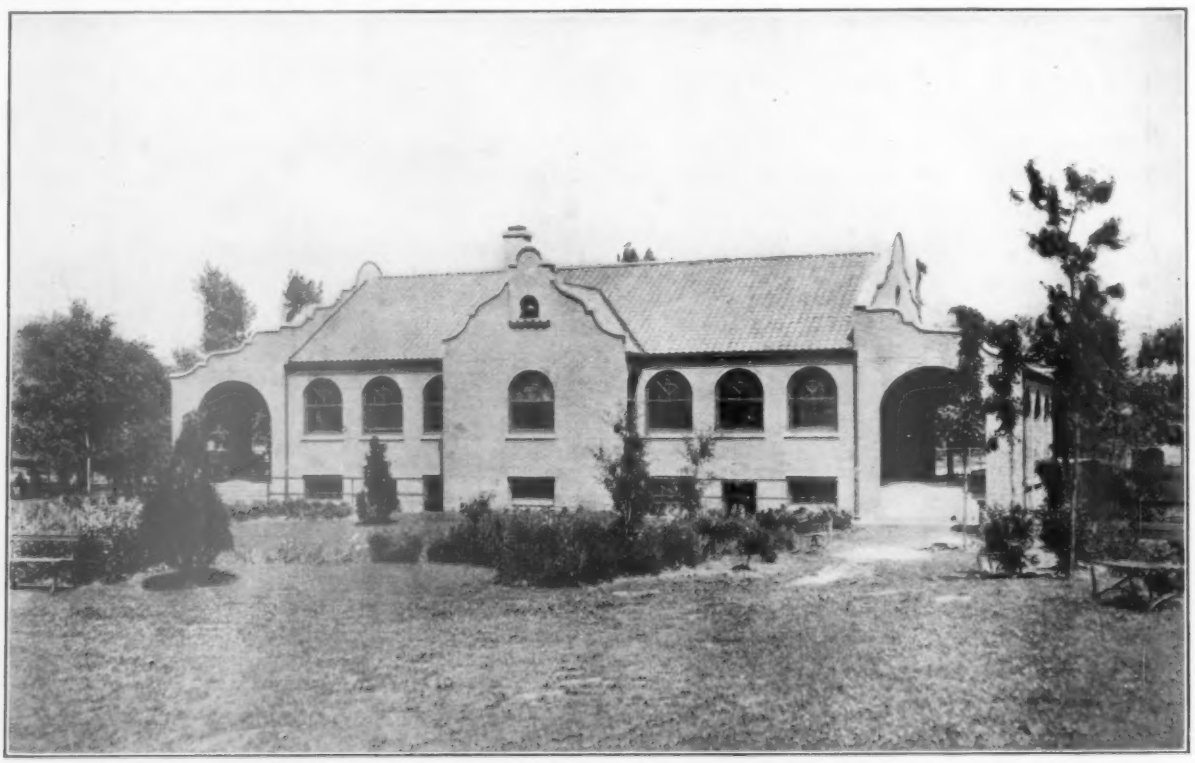
Valuable information regarding shelter buildings in other cities, including certain principles of construction and operation, is contained in the *Park Manual,* Volume One, Pages 393-398, and in *Play Areas,* Pages 92-95.



FLOOR PLAN OF THE SHELTER HOUSE, ROBERT LOUIS STEVENSON PLAYGROUND, PLAYGROUND BOARD, OAK PARK, ILLINOIS
(Designed by John S. Van Bergen, Architect, Ravinia, Illinois)

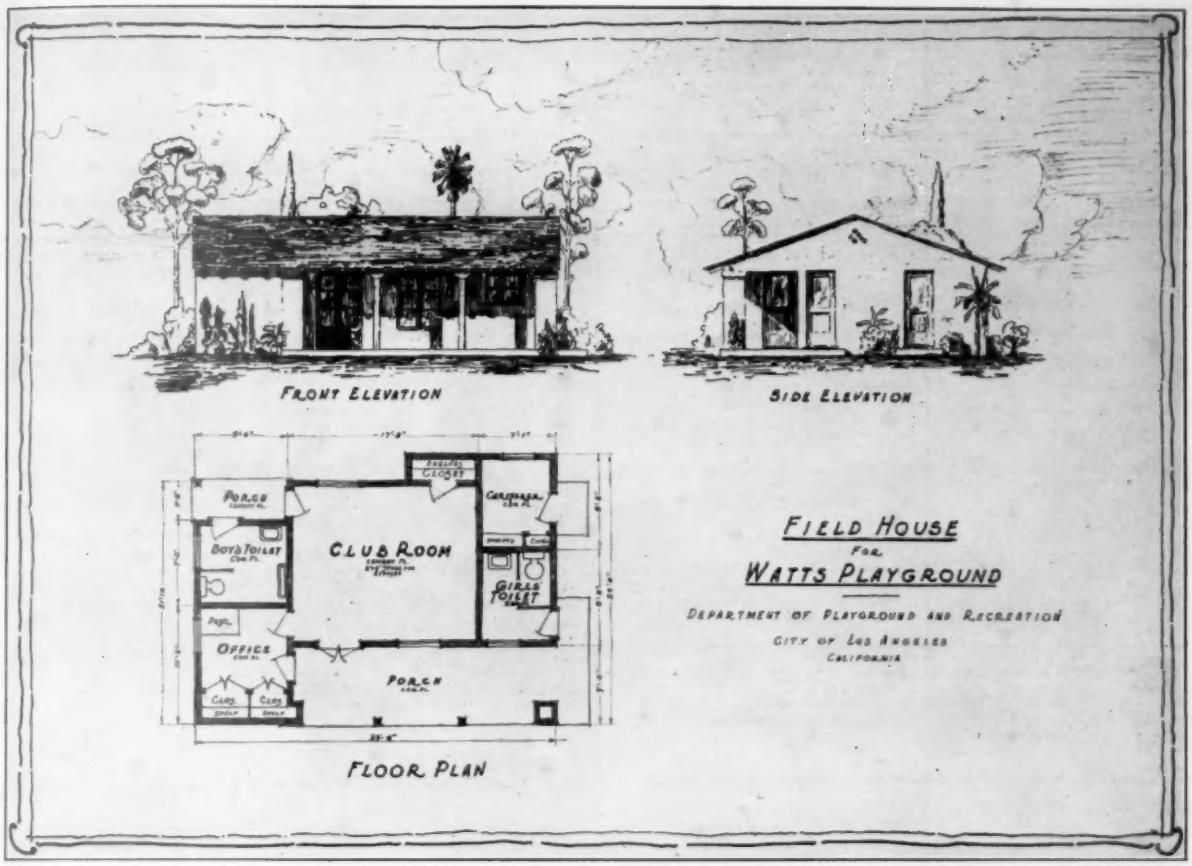
An effectively designed structure. The assembly room, the two group rooms and kitchen suggest the social and recreational uses which this building affords. See illustration on Page 336 and report on Page 341.

PLAYGROUND SHELTERS DESCRIPTION	BIRMINGHAM, Alabama	CHICAGO HEIGHTS, Illinois	CHICAGO HEIGHTS, Illinois
1. *Location* 2. *Year built*	1. North Birmingham Park 2. 1926	1. Jirtle Playground 2. 1924	1. Ashland Avenue Playground 2. 1927
1. *Length* 2. *Width* 3. *Height* 4. *Entirely enclosed?*	1. 62′ 9″ 2. 32′ 6″ (central section—13′) 3. One story 4. No	1. 64′ 2. 24′ 8″ 3. 28′ 4. No	1. 85′ 6″ 2. 43′ 2″—32′ 2″ 3. 24′ 4. Yes
Materials used in construction	Foundation—concrete Floor—cement (for pavilions a portion of Trucan Lavatories "Art Roc" floor hardener and coloring was added) Walls—outside, brick; inside, cement plaster Inside trim—yellow pine Toilets—cement floors, plaster walls Roof—"Riviera" Mission tile	Foundation—concrete Floor—concrete Walls—br.ck Inside trim—wood Toilets—concrete floors, wooden partitions Roof—Spanish tile	Foundation—concrete Floor—concrete Walls—plaster Inside trim—wood Toilets—concrete floors, sheet iron partitions Roof—Spanish tile
Rooms and facilities	Ladies' rest room—19′ 9″ x 10′ Ladies' toilet—10′ x 9′ 7″; 3 toilets, lavatory (outside entrance) Men's toilet—14′ 6″ x 10′; 2 toilets, urinal, lavatory (outside entrance) Concession stand—14′ 4″ x 10′ Pavilion, left wing—19′ 6″ x 13′ Pavilion, right wing—19′ 6″ x 13′	Basement— Boys' toilet—31′ x 25′ (outside entrance) Girls' toilet—31′ x 25′ (outside entrance) Storage room—10′ x 8′ Two rooms—12′ 8″ x 11′ 8″ on either side of open section on main floor	Main floor— Boys' playroom—30′ x 20′ Girls' playroom—30′ x 20′ Two shelters at ends of building partly enclosed, 21′ x 12′ each Superintendent's room—15′ 10″ x 9′ Basement— Boys' toilet—20′ x 10′ 4 toilets, 3 urinals, 3 showers (outside entrance) Girls' toilet—20′ x 10′, 4 toilets, 3 showers (outside entrance) Girls' playroom 20′ x 20′ Boys' playroom 20′ x 20′ Coal room, 26′ x 5′
1. *How heated?* 2. *Shelter lighted? Describe*	1. Not heated 2. Yes; ladies' rest rm. 2—50 watt, ladies' toilet 1—50 watt, men's toilet 1—50 watt, concession stand 1—75 watt, left wing 1—75 watt, right wing 1—75 watt	1. Coal stoves 2. Yes; electricity	1. Hot air with fan 2. Yes; electricity



PLAYGROUND SHELTER, ASHLAND AVENUE PLAYGROUND, PARK BOARD, CHICAGO HEIGHTS, ILLINOIS

A type of modern playground building which embodies attractiveness of design, durability and general utility. It suggests also the possibilities of effective planting of trees and shrubs. In addition to comfort and shelter facilities there are playrooms for boys and girls, both on the main floor and in the basement. (See report)



Due to the limited facilities for indoor recreation activities, this building is classed as a playground shelter. See illustration on Page 343 and report on Page 340.

PLAYGROUND SHELTERS (Continued)	BIRMINGHAM, Alabama (Continued)	CHICAGO HEIGHTS, Illinois (Continued)	CHICAGO HEIGHTS, Illinois (Continued)
CONSTRUCTION COST	General conditions.....$ 500.00 Foundation ..... 250.00 Roof ..... 400.00 Floors ..... 275.00 Plumbing and sewers..... 850.00 Grading ..... 150.00 Mill work, doors, windows, hardware, sashing ..... 1,190.00 Lighting ..... 100.00 Painting ..... 200.00 Architect ..... 250.00 Masonry ..... 1,100.00 Sheet metal work..... 100.00 Plastering ..... 250.00 TOTAL .....$5,615.00 (Does not include contractor's fee; approximately 10 per cent)	Foundation and general work .....$10,938.00 Plumbing and sewers..... 2,761.61 Architect ..... 661.00 Extras ..... 752.17 TOTAL $15,112.78	Foundation and general work .....$18,606.50 Plumbing and sewers..... 2,520.00 Heating plant ..... 698.00 Lighting fixtures ..... 115.85 Architect ..... 827.52 Extras ..... 502.81 TOTAL $23,270.68
1. *Used how many weeks per year?* 2. *Hours open* 3. *Persons responsible for care of building*	1. Thirteen weeks 2. 7 a.m.—7 p.m. 3. No regular attendants; caretaker for park spends one hour per day cleaning it	1. Fifty-two weeks 2. 9 a.m.—12; 2—8 p.m. on week days; 1—6 p.m. Sundays and holidays 3. Caretaker, $115.00 per month, two hours per day for care of building; remaining time on grounds. No playground director present	1. Fifty-two weeks 2. 9 a.m.—12; 2—8 p.m. on week days; 1—6 p.m. on Sundays and holidays 3. Caretaker, $175.00 per month; 1½ hours per day on building, grounds, and general discipline. No playground director present
ACTIVITIES CONDUCTED 1. *In building* 2. *On porch*	1. Board meetings, weaving No regular activities, mostly a rest shelter 2. No porch	1. Indoor and quiet games 2. Indoor games conducted on porch in summer; used by mothers also	1. Quiet games; work shop in basement 2. Quiet games in summer; congregating place for mothers
OPERATING COST	Operating costs not charged against building	Caretaker $345.00	Caretaker .....$360.00 Light (since Aug. 22nd).... 27.20 Heat ..... 81.00 Game supplies ..... 36.00 TOTAL $504.20

PLAYGROUND SHELTERS DESCRIPTION	CLAREMONT, New Hampshire	DETROIT, Michigan	LOS ANGELES, California
1. *Location*	1. Monadnock Park; between children's playground and athletic field, near tennis courts	1. No. 7 Playground	1. Watts Playground
2. *Year built*	2. 1918	2. 1924	2. 1928
1. *Length* 2. *Width* 3. *Height* 4. *Entirely enclosed?*	1. 38′ 2. 22′ 3. One story 4. Yes; except porch	1. 26′ 2. 20′ 3. 10′ 4. Yes	1. 33′ 4″ 2. 18′ 4″ 3. 12′ high 4. Yes
Materials used in construction	Foundation—concrete Floor—maple Walls and ceiling—sheathed with hard pine Inside trim—hard pine Toilets—hard pine floor Roof—asphalt shingles	Foundation—concrete Floor—concrete Walls—tapestry face brick Inside trim—brick Toilets—brick Roof—concrete	Foundation—concrete Floor—cement Walls—wood Inside trim—exposed 3″ x 4″ studs toilets ceiled Toilets—flush valve type Roof—shingle
Rooms and facilities	Boys' toilet—10′ x 8′; 2 toilets, lavatory Girls' toilet—10′ x 8′; 2 toilets, lavatory Piazza—38′ x 12′ Benches, chairs Recreation room—30′ x 22′; lavatory, bubbler, piano, victrola, coal stove, 4—60 watt lights	Boys' toilet—12′ x 10′; 3 toilets, wash basin, urinal (outside entrance) Girls' toilet—12′ x 10′; 3 toilets, wash basin (outside entrance) Storage room—24′ x 10′ (equipped with Smith street-car heater)	Office—10′ x 9′ 2 closets, each 4′ x 2′ 6″ Club room—17′ 5″ x 14′; closet 9 x 2′ Caretaker's room—8′ 8″ x 6′ 6″ Boys' toilet—8′ 6″ x 7′ 8″; toile urinal, lavatory (outside entrance Girls' toilet—8′ x 6′ 6″; toilet, lav tory (outside entrance) Porch—21′ 8″ x 7′
1. *How heated?*	1. Coal stove	1. Smith street-car heater—forced air	1. Not heated
2. *Shelter lighted? Describe*	2. Yes; 4—60 watt lights	2. Yes; 3—100 watt lamps	2. Yes; electricity
CONSTRUCTION COST	Foundation ..... $ 100.00 General work ..... 1,000.00 Piazza ..... 200.00 Plumbing and sewers..... 214.00 Lighting ..... 51.00 Septic tank ..... 100.00 TOTAL $1,665.00	General construction..... $4,682.00 Plumbing and sewers..... 530.00 Heating plant ..... 150.00 TOTAL $5,362.00	Foundation ..... $ 147. General construction..... 1,557. Plumbing and sewers..... 475. Lighting ..... 128. Other ..... 363. TOTAL ..... $2,670. (All buildings and facilities for pla and recreation purposes are de signed and their construction su ervised by the Division of Co struction and Maintenance of t Playground and Recreation D partment)
1. *Used how many weeks per year?*	1. Ten weeks in summer, odd times other seasons as occasions demand	1. Fifty-two weeks	1. Fifty-two weeks
2. *Hours open*	2. 9 a.m.—8 p. m.	2. 9 a.m.—9 p.m.	2. 2:30 p.m.—6 p.m. Monday t Friday; 9 a.m.—6 pm. Saturda and Sunday; 9 a.m.—5 p.m. dail during summer months Open four or five evenings p week throughout year
3. *Persons responsible for care of building*	3. One man, 1 hr. per day, 50c per hr., cleans and attends shelter	3. Caretaker, full time, $1,320.00, supervision, cleaning, etc.	3. Chief director, 10½ mos. $16 1½ mos. $175 per mo; Directo 12 mos., $100 per month; Vac tion substitutes, $160 per season Sunday substitutes, $250 p season; Extra service, $200
ACTIVITIES CONDUCTED 1. *In building*	1. Dramatic plays; handcraft; indoor games; Tennis, Rifle Range and Woman's Clubs hold meetings	1. Handcraft, quiet games	1. Harmonica band, story-tellin games, Campfire Girls, Bo Scouts, handcraft, athletic club
2. *On porch*	2. Practically same as inside	2. No porch	2. ———
OPERATING COST	Caretaker ..... $35.00 Supplies ..... 70.00 Light ..... 3.25 Coal ..... 49.50 TOTAL $157.75	Caretaker ..... $1,320.00 Supplies ..... 100.00 TOTAL $1,420.00	Salaries and wages..... $3,805.

PLAYGROUND SHELTERS DESCRIPTION	LYNN, Massachusetts	MILWAUKEE, Wisconsin	OAK PARK, Illinois
1. *Location*	1. Elmwood Playground	1. Pulaski Street Playground	1. Robert Louis Stevenson Playground near wading pool
2. *Year built*	2. 1928	2. 1928	2. 1928
1. *Length* 2. *Width*	1. 30′ 2½″ 2. 20′ 9½″	1. 28′ 2. 18′	1. "T" shape & Vertical section (assembly room), 2. 37′ x 20′ 10″ Horizontal section, 45′ 10″ x 14′ 10″
3. *Height*	3. One story 9′ to ceiling	3. One story and basement	3. ———
4. *Entirely enclosed?*	4. ———	4. Yes	4. Yes
Materials used in construction	Foundation—one part cement, two-and-a-half sand, five broken stone Floor—composition—first coat 3/16″ marbleoid, wearing surface 5/16″ marbleoid Walls—"Natco" glazed double shell tile 8″ x 12″ x 5″ with glazed combed exterior faces Inside trim—interior face of tile has smooth glazed surface Toilets—slate partitions Roof—asbestos shingles over one-ply slater's felt	Foundation—concrete Walls—brick Toilets—marble partitions and backs, tile floors Lobby floor—concrete Roof—asbestos shingles	Foundation—concrete Floor—tile Walls—frame, stucco and plaster Inside trim—heavy plaster, oak trim Toilets—tile Roof—asphalt shingles
Rooms and facilities	Boys' toilet—9′ 6″ x 9′; 2 toilets, 2 urinals, lavatory (outside entrance) Girls' toilet—9′ 6″ x 9′; 2 toilets, lavatory (outside entrance) Men's toilet—16′ x 9′ 6″; toilet, lavatory, open shower (outside entrance) Women's toilet—12′ x 9′ 6″; toilet, lavatory, open shower (outside entrance) Caretaker's room—10′ x 9′ 6″; lavatory	First floor— Office—15′ 10″ x 14′ 7″—6′ 3″ Boys' toilet—8′ 6″ x 8′; 2 toilets, urinal, lavatory (outside entrance) Girls' toilet—8′ 6″ x 8′; 3 toilets, lavatory (outside entrance) Drinking fountain in boys' and girls' entryways	Boys' toilet—8′ 8″ x 6′ 3″; toilet, urinal, lavatory (outside entrance) Girls' toilet—8′ 8″ x 5′; toilet, lavatory (outside entrance) Assembly room—37′ x 20′ 10″; fireplace, book shelves Kitchen—9′ 5″ x 8′ 8″ Two group rooms, each 14′ x 8′ 8″
1. *How heated?* 2. *Shelter lighted? Describe*		1. ——— 2. Yes; electricity	1. Oil heater 2. Yes; not yet installed
CONSTRUCTION COST	General construction.....$5,324.00 Architect ..... 319.44 TOTAL $5,643.44	Excavation and general construction .....$3,070.00 Cut stone ..... 196.00 Tile and marble..... 958.00 Steel and iron work, including flag pole..... 480.00 Painting and glazing..... 155.00 Sheet metal and asbestos shingles ..... 303.00 Plumbing ..... 1,394.00 Lathing and plastering.... 115.00 TOTAL $6,671.00	General construction..... $4,653.00 Foundation and brick work 1,491.00 Plumbing and sewers..... 670.00 Heating plant..... 500.00 Lighting ..... 1,024.00 Architect ..... 2,000.00 TOTAL .....$10,338.00 (Cost slightly higher due to attractive design and facilities for various community groups.)
1. *Used how many weeks per year?* 2. *Hours open* 3. *Persons responsible for care of building*	Not yet in operation	1. Approx. twenty-five weeks 2. ——— 3. Playground custodian serves as janitor	1. Fifty-two weeks 2. 8 a.m.—5 p.m. and evenings for scheduled meetings 3. Caretaker—grounds and building, $4.50 per day, $2.00 extra for evenings
ACTIVITIES CONDUCTED 1. *In building*		1. No regular activities, used primarily as shelter	1. Handcraft, story-telling, games, nature study, dramatics, orchestra, junior police, Boys', Girls', Women's, Men's, Travel, High School Social and Aviation Clubs and Boy Scouts
2. *On porch*		2. No porch	2. ———
OPERATING COST		Full year of operation not yet completed	Building just completed

PLAYGROUND SHELTERS	CLAREMONT, New Hampshire	DETROIT, Michigan	LOS ANGELES, California
DESCRIPTION			
1. *Location*	1. Monadnock Park; between children's playground and athletic field, near tennis courts	1. No. 7 Playground	1. Watts Playground
2. *Year built*	2. 1918	2. 1924	2. 1928
1. *Length*	1. 38′	1. 26′	1. 33′ 4″
2. *Width*	2. 22′	2. 20′	2. 18′ 4″
3. *Height*	3. One story	3. 10′	3. 12′ high
4. *Entirely enclosed?*	4. Yes; except porch	4. Yes	4. Yes
Materials used in construction	Foundation—concrete Floor—maple Walls and ceiling—sheathed with hard pine Inside trim—hard pine Toilets—hard pine floor Roof—asphalt shingles	Foundation—concrete Floor—concrete Walls—tapestry face brick Inside trim—brick Toilets—brick Roof—concrete	Foundation—concrete Floor—cement Walls—wood Inside trim—exposed 3″ x 4″ studs; toilets ceiled Toilets—flush valve type Roof—shingle
Rooms and facilities	Boys' toilet—10′ x 8′; 2 toilets, lavatory Girls' toilet—10′ x 8′; 2 toilets, lavatory Piazza—38′ x 12′ Benches, chairs Recreation room—30′ x 22′; lavatory, bubbler, piano, victrola, coal stove, 4—60 watt lights	Boys' toilet—12′ x 10′; 3 toilets, wash basin, urinal (outside entrance) Girls' toilet—12′ x 10′; 3 toilets, wash basin (outside entrance) Storage room—24′ x 10′ (equipped with Smith street-car heater)	Office—10′ x 9′ 2 closets, each 4′ x 2′ 6″ Club room—17′ 5″ x 14′; closet 9′ x 2′ Caretaker's room—8′ 8″ x 6′ 6″ Boys' toilet—8′ 6″ x 7′ 8″; toilet, urinal, lavatory (outside entrance) Girls' toilet—8′ x 6′ 6″; toilet, lavatory (outside entrance) Porch—21′ 8″ x 7′
1. *How heated?*	1. Coal stove	1. Smith street-car heater—forced air	1. Not heated
2. *Shelter lighted? Describe*	2. Yes; 4—60 watt lights	2. Yes; 3—100 watt lamps	2. Yes; electricity
CONSTRUCTION COST	Foundation ..... $ 100.00 General work ..... 1,000.00 Piazza ..... 200.00 Plumbing and sewers..... 214.00 Lighting ..... 51.00 Septic tank ..... 100.00 TOTAL $1,665.00	General construction.....$4,682.00 Plumbing and sewers..... 530.00 Heating plant ..... 150.00 TOTAL $5,362.00	Foundation ..... $ 147.00 General construction..... 1,557.00 Plumbing and sewers..... 475.00 Lighting ..... 128.00 Other ..... 363.00 TOTAL .....$2,670.00 (All buildings and facilities for play and recreation purposes are designed and their construction supervised by the Division of Construction and Maintenance of the Playground and Recreation Department)
1. *Used how many weeks per year?*	1. Ten weeks in summer, odd times other seasons as occasions demand	1. Fifty-two weeks	1. Fifty-two weeks
2. *Hours open*	2. 9 a.m.—8 p. m.	2. 9 a.m.—9 p.m.	2. 2:30 p.m.—6 p.m. Monday to Friday; 9 a.m.—6 pm. Saturday and Sunday; 9 a.m.—5 p.m. daily during summer months Open four or five evenings per week throughout year
3. *Persons responsible for care of building*	3. One man, 1 hr. per day, 50c per hr., cleans and attends shelter	3. Caretaker, full time, $1,320.00, supervision, cleaning, etc.	3. Chief director, 10½ mos. $165, 1½ mos. $175 per mo; Director, 12 mos., $100 per month; Vacation substitutes, $160 per season; Sunday substitutes, $250 per season; Extra service, $200
ACTIVITIES CONDUCTED			
1. *In building*	1. Dramatic plays; handcraft; indoor games; Tennis, Rifle Range and Woman's Clubs hold meetings	1. Handcraft, quiet games	1. Harmonica band, story-telling, games, Campfire Girls, Boy Scouts, handcraft, athletic clubs
2. *On porch*	2. Practically same as inside	2. No porch	2. ———
OPERATING COST	Caretaker ..... $35.00 Supplies ..... 70.00 Light ..... 3.25 Coal ..... 49.50 TOTAL $157.75	Caretaker .....$1,320.00 Supplies ..... 100.00 TOTAL $1,420.00	Salaries and wages.....$3,805.00

PLAYGROUND SHELTERS DESCRIPTION	LYNN, Massachusetts	MILWAUKEE, Wisconsin	OAK PARK, Illinois
1. Location	1. Elmwood Playground	1. Pulaski Street Playground	1. Robert Louis Stevenson Playground near wading pool
2. Year built	2. 1928	2. 1928	2. 1928
1. Length *2. Width*	1. 30′ 2½″ 2. 20′ 9½″	1. 28′ 2. 18′	1. "T" shape & Vertical section (assembly room), 2. 37′ x 20′ 10″ Horizontal section, 45′ 10″ x 14′ 10″
3. Height	3. One story 9′ to ceiling	3. One story and basement	3. ———
4. Entirely enclosed?	4. ———	4. Yes	4. Yes
Materials used in construction	Foundation—one part cement, two-and-a-half sand, five broken stone Floor—composition—first coat 3/16" marbleoid, wearing surface 5/16" marbleoid Walls—"Natco" glazed double shell tile 8″ x 12″ x 5″ with glazed combed exterior faces Inside trim—interior face of tile has smooth glazed surface Toilets—slate partitions Roof—asbestos shingles over one-ply slater's felt	Foundation—concrete Walls—brick Toilets—marble partitions and backs, tile floors Lobby floor—concrete Roof—asbestos shingles	Foundation—concrete Floor—tile Walls—frame, stucco and plaster Inside trim—heavy plaster, oak trim Toilets—tile Roof—asphalt shingles
Rooms and facilities	Boys' toilet—9′ 6″ x 9′; 2 toilets, 2 urinals, lavatory (outside entrance) Girls' toilet—9′ 6″ x 9′; 2 toilets, lavatory (outside entrance) Men's toilet—16′ x 9′ 6″; toilet, lavatory, open shower (outside entrance) Women's toilet—12′ x 9′ 6″; toilet, lavatory, open shower (outside entrance) Caretaker's room—10′ x 9′ 6″; lavatory	First floor— Office—15′ 10″ x 14′ 7″—6′ 3″ Boys' toilet—8′ 6″ x 8′; 2 toilets, urinal, lavatory (outside entrance) Girls' toilet—8′ 6″ x 8′; 3 toilets, lavatory (outside entrance) Drinking fountain in boys' and girls' entryways	Boys' toilet—8′ 8″ x 6′ 3″; toilet, urinal, lavatory (outside entrance) Girls' toilet—8′ 8″ x 5′; toilet, lavatory (outside entrance) Assembly room—37′ x 20′ 10″; fire place, book shelves Kitchen—9′ 5″ x 8′ 8″ Two group rooms, each 14′ x 8′ 8″
1. How heated? *2. Shelter lighted? Describe*		1. ——— 2. Yes; electricity	1. Oil heater 2. Yes; not yet installed
CONSTRUCTION COST	General construction.....$5,324.00 Architect ..... 319.44 TOTAL $5,643.44	Excavation and general construction .....$3,070.00 Cut stone ..... 196.00 Tile and marble..... 958.00 Steel and iron work, including flag pole..... 480.00 Painting and glazing..... 155.00 Sheet metal and asbestos shingles ..... 303.00 Plumbing ..... 1,394.00 Lathing and plastering.... 115.00 TOTAL $6,671.00	General construction..... $4,653.00 Foundation and brick work 1,491.00 Plumbing and sewers..... 670.00 Heating plant..... 500.00 Lighting ..... 1,024.00 Architect ..... 2,000.00 TOTAL .....$10,338.00 (Cost slightly higher due to attractive design and facilities for various community groups.)
1. Used how many weeks per year? *2. Hours open* *3. Persons responsible for care of building*	Not yet in operation	1. Approx. twenty-five weeks 2. ——— 3. Playground custodian serves as janitor	1. Fifty-two weeks 2. 8 a.m.—5 p.m. and evenings for scheduled meetings 3. Caretaker—grounds and building, $4.50 per day, $2.00 extra for evenings
ACTIVITIES CONDUCTED *1. In building*		1. No regular activities, used primarily as shelter	1. Handcraft, story-telling, games, nature study, dramatics, orchestra, junior police, Boys', Girls', Women's, Men's, Travel, High School Social and Aviation Clubs and Boy Scouts
2. On porch		2. No porch	2. ———
OPERATING COST		Full year of operation not yet completed	Building just completed

PLAYGROUND SHELTERS DESCRIPTION	PHILADELPHIA, Pennsylvania	ROCKFORD, Illinois	SEATTLE, Washington
1. *Location*	1. Mill Creek Playground, at main entrance	1. Black Hawk Park Playground, near picnic area and children's playground	1. Georgetown Playground
2. *Year built*	2. 1925	2. 1914	2. 1928
1. *Length* 2. *Width* 3. *Height* 4. *Entirely enclosed?*	1. 41′ 2. 30′ 3. 8′ 6″ to roof 4. No; open porch on one side	1. 59′ 2. 23′ 3. 17′ 4. No; open on two sides	1. 53′ 6″ 2. 26′ 3. 8′ 4″ ceiling—(one story) 4. Yes
Materials used in construction	Foundation—concrete Floor—concrete Walls—frame covered with asbestos board Inside trim—wood Roof—slate	Foundation—concrete Floor—concrete Walls—brick Inside trim—brick Toilets—brick Roof—asphalt shingles	Foundation—concrete Floor—concrete Walls—concrete Inside trim—wood Toilets—concrete floors Roof—cedar shingles
Rooms and facilities	Boys' toilet—7′ 10″ x 7′ 7″; toilet, 2 urinals (outside entrance) Girls' toilet—7′ 10″ x 7′ 7″; 2 toilets, (outside entrance) Office—7′ 10″ x 7′ 7″ Store-room—7′ 10″ x 7′ 7″	Women's toilet—15′ x 9′; 6 toilets (outside entrance) Men's toilet—15′ x 9′; 6 toilets, urinal (outside entrance) Refectory—17′ x 16′ 6″ Storage space—16′ 6″ x 7′ Utility space—15′ x 2′ 10″ Center shelter section—25′ 8″ x 24′	Boys' toilet—10′ 10″ x 10′ 1″; 2 toilets, urinal, lavatory (outside entrance) Girls' toilet—10′ 10″ x 10′ 1″; 1 toilets, lavatory (outside entrance) Dressing room—41 lockers Caretakers' room—13′ 8″ x 9′ 11″; hot water tank, switches Instructor's room—10′ 10″ x 9′ 11″; lavatory Playroom—25′ x 17′; fireplace Shower room—4 showers
1. *How heated?* 2. *Shelter lighted? Describe*	1. Small stove in supervisor's office 2. Yes; 1—50 watt light in each toilet, office room and storeroom, 4—50 watt lights in ceiling of porch	1. Not heated 2. Yes	1. Open fireplace; electric hot water heater 2. Yes; electricity
CONSTRUCTION COST	TOTAL .....$5,882.00 (Shelter constructed under same contract as swimming pool, bath house, grading and fencing on four acre play area.)	TOTAL (Contract).....$2,900.00	General construction.....$2,689.00 Carpenter work..... 265.00 Plumbing and sewers..... 790.00 Lighting ..... 80.00 TOTAL $3,824.00
1. *Used how many weeks per year?* 2. *Hours open* 3. *Persons responsible for care of building*	1. Fifty-two weeks 2. All day in summer; afternoons in winter 3. Play area supervisors (2—3 men); Caretaker for entire unit	1. Fifty-two weeks 2. All day 3. Park supervisor	1. Fifty-two weeks 2. Eight hours 3. Caretaker, part time, $4.50 per day. Play supervisor in summer; part time in winter
ACTIVITIES CONDUCTED 1. *In building* 2. *On porch*	1. None 2. Handcraft and quiet games; resting place for mothers, participants, spectators	1. Used chiefly for picnics 2. No porch	1. Games, community meetings 2. No porch
OPERATING COST	Cost of equipment and time of caretaker for this building not kept separate from like operating cost of other facilities of entire unit		Amounts chargeable to shelter house not segregated

PLAYGROUND SHELTERS DESCRIPTION	TACOMA, Washington
1. *Location* 2. *Year built*	1. Ferry Park 2. 1928
1. *Length* 2. *Width* 3. *Height* 4. *Entirely enclosed?*	1. 24' 2. 14' 3. 12' 4. Yes
Materials used in construction	Foundation—cement Floor—cement Walls—wood Inside trim—wood Toilets—wood Roof—composition shingles
Rooms and facilities	Boys' toilet—9' x 7'; toilet, urinal, lavatory (outside entrance) Girls' toilet—9' x 7'; toilet, lavatory (outside entrance) Club room—13' x 13' Covered pergolas—one on each side of building Supply room and director's toilet; toilet, lavatory
1. *How heated?* 2. *Shelter lighted? Describe*	1. Not heated 2. Not lighted

PLAYGROUND SHELTERS (Continued)	TACOMA, Washington (Continued)
CONSTRUCTION COST	TOTAL $1,200.00
1. *Used how many weeks per year?* 2. *Hours open* 3. *Persons responsible for care of building*	1. Forty weeks 2. 9 a.m.—9 p.m. in summer. School year—afternoons only 3. Playground director; caretaker, two hours per day for six months, one hour per day rest of year; 50c per hour
ACTIVITIES CONDUCTED	
1. *In building* 2. *On porch*	1. Handcraft, art, music, dramatics and checkers 2. Same
OPERATING COST	Caretaker $224.00

SHELTER HOUSE, WATTS PLAYGROUND, DEPARTMENT OF PLAYGROUND AND RECREATION, LOS ANGELES, CALIFORNIA

See floor plan and elevations on Page 339 and report on Page 340.

Athletic Fields

ATHLETIC FIELDS	BIRMINGHAM, Alabama	EVANSTON, Illinois	SARATOGA SPRINGS, New York
DESCRIPTION			
1. *Name*	1. Legion Field	1. Boltwood Field	1. Recreation Field
2. *Location*	2. ———	2. Main Street and Florence Avenue	2. Eastern section of city
3. *Area*	3. ———	3. 16½ acres	3. 22 acres
4. *Dimensions*	4. ———	4. 1,260′ x 650′	4. ———
5. *Entirely enclosed?*	5. Yes	5. Yes	5. Yes
6. *Kind of enclosure*	6. Brick wall and grandstand	6. 6′ Cyclone woven wire fence	6. 6′ Cyclone woven wire fence, barbed wire overhang, posts set in concrete
Game areas—surface, grade, drainage	Football (also used for soccer)—turf Running track—lines of 4″ drains 35′ apart extend from center to outer edges of field and track (herringbone plan)	Football—turf; 15″ grade Baseball—turf; skinned base lines; 15″ grade Soccer—turf; 15″ grade Field hockey—turf; 15″ grade Tennis—clay; 12″ grade (Lines of 6″ tile, 25′ apart, 18″ below surface—for entire field)	Football—turf; level Baseball (2)—turf, skinned base lines; level (also used for field hockey) Soccer—turf; level Running track—cinder; level Tennis—5 clay, 3 cinder; level (No special drainage—entire field sandy loam soil, good natural drainage)
SPECIAL FACILITIES	Jumping pits Po'e vault Flag pole	Volley ball courts Playground ball diamonds Jumping pits Pole vault Horseshoe courts Handball courts College golf course Ice skating rink Playground apparatus Picnic grounds Sand boxes Nursery Drinking fountains Flag pole	Jumping pits Pole vault Flag pole Drinking pump
FIELD HOUSE			
1. *Dimensions*	Field house facilities to be built beneath grandstand	1. 112′ 4″ x 108′ 1″	1. 40′ x 15′
2. *Construction materials*		2. Brick and concrete	2. Frame
3. *Facilities*		3. Gym—auditorium (balcony) Men's and women's club rooms Men's and women's toilets, showers, and lockers Men's and women's directors' rooms Kitchen	3. Main room, shower, toilet, stove, supply room and ticket booth
RUNNING TRACK			
1. *Length*	1. 440 yds.	Not yet installed	1. 440 yds.
2. *Width*	2. 27 ft.		2. 25 ft.
3. *Length of straightaway*	3. 220 yds. (extends beyond length of field)		3. 220 yds.
4. *Width of straightaway*	4. 27 ft.		4. 25 ft.
5. *End radius*	5. 95 ft.		5. ———
6. *Kind of curb*	6. ———		6. No curb
TRACK CONSTRUCTION	4″ layer of coarse slag Layer of coarse cinders 12″ layer screened cinders 4″ layer of one part clay to 3 parts cinders screened thru ¼″ mesh screen ½″ surface dressing of cinders screened thru ¼″ mesh screen	Not yet installed	Base—8″ layer of steam cinders Surface—2″ layer of fine (partially screened) cinders
GRANDSTAND			
1. *Location on field*	1. On either side of football field and running track	Portable bleachers	1. Between football field and baseball diamond
2. *Construction materials*	2. Concrete		2. Iron and wood
3. *Length*	3. ———		3. 78′
4. *Number rows of seats*	4. 90		4. 7
5. *Seating capacity*	5. 21,000; eventually 52,000		5. 500
6. *Covered?*	6. No		6. Yes
7. *Use of space below bleachers*	7. Dressing rooms to be built		7. ———
BASEBALL BACKSTOP			
1. *Distance from home plate*	Baseball not played on this field	1. 90′	1. 90′
2. *Height*		2. 20′ with 5′ overhang, 45°	2. 12′
3. *Width*		3. 40′ including wings	3. 60′
4. *Material used*		4. Cyclone woven wire with iron posts	4. Wooden frame, 2″ mesh woven wire, 4 sections—each 15′ wide
5. *Orientation of diamond*		5. North and south	5. Home plate in southwest
WATER SUPPLY			
1. *Sprinkler connections — number, location, type*		1. In sunken boxes, 100′ apart	1. 7 sprinkler connections, ¾″ nozzle, inset shaft
2. *Water pipe—size, location*		2. ½″ pipe, 4½′ depth	2. ¾″ pipe, connected with 2″ main

ATHLETIC FIELDS (Continued)	BIRMINGHAM, Alabama (Continued)	EVANSTON, Illinois (Continued)	SARATOGA SPRINGS, New York (Continued)
1. *Parking space—size, location, surface*		1. None inside field	1. Turf surface, between field house and games area containing football field and 2 baseball diamonds
2. *Paths and walks—location, materials used, width*		2. Cinder and concrete paths; driveway extends across center of field	2. ———
1. *Landscaping*	1. Little to be done	1. Shrubbery and trees around entire area inside of fence	1. Row of white and black pines and spruce around field inside fence; rose bushes at entrances
2. *Field lighted?*	2. Yes; 48—1,500 watt lights with 22" reflectors on top of grandstand	2. Yes; flood lights used for special activities such as football and skating	2. Partially lighted—5 rows of lights over tennis courts (used for skating in winter)
CONSTRUCTION COST	Grading, drainage, and water supply ..... $ 46,000.00 Lighting ..... 14,000.00 Grandstand ..... 300,000.00 Flag ..... 165.00 Score board (donated).. 6,700.00 Football goals ..... 75.00 TOTAL .....$366,940.00 (Does not include architect's fee)	Grading, seeding, drainage, water supply..... $ 35,000.00 Portable lighting ..... 1,000.00 Fencing ..... 4,400.00 Landscaping ..... 3,800.00 Field house (estimate).. 110,000.00 Portable bleachers ..... 3,300.00 Playground and field house equipment ..... 5,500.00 Baseball backstop..... 300.00 Football goals ..... 50.00 Flag pole ..... 120.00 Athletic supplies (each year) ..... 200.00 TOTAL .....$163,670.00 (Does not include architect's and engineer's fees—field house)	Grading .....$1,000.00 Water supply..... 500.00 Lighting ..... 125.00 Fencing ..... 1,200.00 Landscaping— Material ..... $250 Labor ..... 250 500.00 Field house..... 450.00 Grandstand ..... 5,000.00 Baseball backstops..... 90.00 Football goals..... 40.00 Tennis courts..... 1,000.00 TOTAL .....$9,905.00 (Architect's and engineer's services donated; much construction work done intermittently by caretaker)
OPERATION			
1. *Groups using field*	1. All high school and college groups may use field	1. Entire community	1. Playground groups, school leagues, twilight leagues, high school athletics, leased for baseball games
2. *Charge for use of facilities?*	2. No	2. No	2. When used for games by outside groups Board of Education receives 15% of gate receipts
3. *Fee for locker space?*	3. No	3. No; deposit fee only	3. No
4. *Admission fee for games?*	4. Yes	4. No.	4. Yes; receipts go to high school athletic fund
1. *Months used per year* 2. *On Sundays?* 3. *Attendance*		1. Twelve months 2. Yes 3. Summer—average 4,500 weekly Other seasons—average 2,200 weekly	1. Almost entire year 2. Yes 3. Information not available
Workers—hours, wages, duties	Man on week days Night watchman Ten men on day before and day after a game Requires eight men one day to sweep, and eight men one day to scrub grandstand	Man director $2,000 Woman director $1,500 Janitor $1,500 Two caretakers at $5.65 per day	Superintendent of grounds—$1,000 per yr. (approx.) Director—$200 per mo., 2 mos. Girl leader—$100 per mo., 2 mos. Three caretakers—6 days per wk one at $3.50 per day, 10 mos. two at $3.00 per day, 6 mos.
FINANCIAL STATEMENT *Expenditures*		Supervision ..... $ 3,500.00 Labor ..... 4,000.00 Water ..... 500.00 Light ..... 500 00 Replacement of equipment 200.00 Athletic supplies..... 150.00 Sand, gravel, etc..... 150.00 Heat and miscellaneous.. 1,000.00 Tools ..... 150.00 TOTAL $10,150.00	(Estimates) Supervision .....$1,600.00 Labor ..... 1,839.00 Light ..... 200.00 Replacement of equipment. 200.00 Athletic supplies..... 100.00 Sand, gravel, etc..... 50.00 Tools ..... 20.00 Miscellaneous ..... 100.00 TOTAL .....$4,109.00 (No charge for water)
Receipts		No receipts	(Estimates) Fees for use of games facilities .....$1,000.00 Admission to games..... *800.00 TOTAL .....$1,800.00 (*Goes to High School athletic fund)

ATHLETIC FIELDS	SOUTH BEND, Indiana	WAUKEGAN, Illinois
DESCRIPTION		
1. *Name*	1. High School Field	1. Township High School Athletic Field
2. *Location*	2. Eastern section of city	2. Western section of city
3. *Area*	3. 21.38 acres	3. 669,000 sq. ft.
4. *Dimensions*	4. 888.8′ x 901′ x 1170′ x 569.8′	4. 660′ x 983′ less corner 165′ x 132′
5. *Entirely enclosed?*	5. Yes	5. ———
6. *Kind of enclosure*	6. 6′ Cyclone chain link fence, No. 6 wire, 2″ mesh	6. ———
Game areas—surface, grade, drainage	Football (4)—turf; level Baseball—turf; level Soccer—turf; level Field hockey (2)—turf; level Running track—cinder; level (No special drainage—entire field has splendid natural drainage)	Football (also one practice and one intramural field)—turf; 4″ grade center to sides; 12—4″ tile drains, 1′ deep, 40′ apart Baseball—turf; 6″ grade; 11—4″ tile drains, 2′ deep, 10′ apart Field hockey—turf; level; 4″ tile drains Running track—cinder; level Tennis (3)—turf; 6″ grade end to end; 15—4″ tile drains; 2′ deep, 10′ apart
SPECIAL FACILITIES	Jumping pits (2) Pole vault Volley ball court Flag pole Drinking fountain Score board Basketball goal Ticket office at entrance	Jumping pit Pole vault Flag pole Drinking fountain Portable bleachers
FIELD HOUSE		
1. *Dimensions*	1. 100′ x 35′	1. 37′ x 30′
2. *Construction materials*	2. Frame	2. Brick and Holland tile
3. *Facilities*	3. ———	3. Two lounging rooms, 2 showers, 2 toilets
RUNNING TRACK		
1. *Length*	1. 440 yds.	1. 440 yds.
2. *Width*	2. 16 ft.	2. 15 ft.
3. *Length of straightaway*	3. 220 yds.	3. 220 yds.
4. *Width of straightaway*	4. 40 ft.	4. 25 ft.
5. *End radius*	5. 93 ft.	5. 120 ft.
6. *Kind of curb*	6. Concrete curb, 4″ wide, 1½″ high	6. Concrete around both sides, 1″ above track surface, 2½″ wide, (3½″ wide at bottom), set in ground 18″, reenforced through center with wire mesh
TRACK CONSTRUCTION	Base—12″ layer of rough fill, 5″ layer head end cinders (screened) Surface—clay dressing	Base—6″ bed of coarse cinders; 2″ layer of cinders screened through ¾″ mesh Surface—4″ layer of steam boiler cinders and loam screened through 5/16″ mesh
GRANDSTAND		
1. *Location on field*	1. North side of football field	1. Southwest corner of field
2. *Construction materials*	2. Wood	2. Wood
3. *Length*	3. 315′	3. 140′
4. *Number rows of seats*	4. 13	4. 15
5. *Seating capacity*	5. 2,490	5. 2,200
6. *Covered?*	6. No	6. Yes
7. *Use of space below bleachers*	7. Storage—entirely enclosed; men's and women's toilets	7. ———
BASEBALL BACKSTOP		
1. *Distance from home plate*	1. 90′	
2. *Height*	2. 25′	
3. *Width*	3. 90′	
4. *Material used*	4. 3½″ galv. iron frame, 6 sections—each 15′ wide	
5. *Orientation of diamond*	5. North and south	
WATER SUPPLY		
1. *Sprinkler connections — number, location, type*	1. One sprinkler for each 100′ diameter of space	1. Twelve sprinklers
2. *Water pipe—size, location*	2. ———	2. 1¼″ and 1½″ pipes connecting with 3″ main

ATHLETIC FIELDS (Continued)	SOUTH BEND, Indiana (Continued)	WAUKEGAN, Illinois (Continued)
1. *Parking space—size, location, surface*	1. Turf surface	1. Area 640' x 75' outside fence, east side of field, stone pavement surface
2. *Paths and walks—location, materials used, width*	2. No paths or walks	2. ———
1. *Landscaping*	1. Shrubs at gate; 20 trees around field inside fence	1. Poplar, elm, oak, ash, linden, and willow trees distributed over entire area.
2. *Field lighted?*	2. Not lighted	2. ———
CONSTRUCTION COST	Grading .....$ 1,600.00 Water supply ..... 400.00 Lighting ..... 180.00 Fencing ..... 3,530.00 Landscaping ..... 120.00 Field house ..... 3,300.00 Grandstand ..... 4,500.00 Baseball backstop..... 125.00 Flag pole..... 50.00 TOTAL .....$13,805.00 (Does not include fee for architectural and engineering service; improvements added intermittently; Board of Education supplied much labor)	Grading, drainage (includes change in entire system of drainage) water supply, lighting.....$37,035.97 Fencing ..... 5,520.72 Landscaping ..... 2,934.60 Field house..... 25,142.50 Baseball backstop..... 850.00 Football goals ..... 50.00 Flag pole ..... 100.00 Athletic supplies (estimate) ..... 3,200.00 Shrubbery and survey.... 1,631.50 TOTAL .....$76,465.29 (Does not include fee for architectural and engineering service)
OPERATION		
1. *Groups using field*	1. Playground and high school groups, intramural athletics, and open to public	1. ———
2. *Charge for use of facilities?*	2. No	2. For baseball and football
3. *Fee for locker space?*	3. No	3. No
4. *Admission fee for games?*	4. Yes, high school games	4. Yes
1. *Months used per year*	1. Twelve months	1. Eight months
2. *On Sundays?*	2. No	2. Yes
3. *Attendance*	3. Information not available	3. Information not available
Workers—hours, wages, duties	Caretaker—year round, $125 per mo.	Custodian—$2,500 per yr.
FINANCIAL STATEMENT *Expenditures*	Not available	Not available
Receipts	Not available	Not available

The above information regarding athletic fields is furnished in considerable detail with respect to construction materials used, game areas and other facilities provided, and cost of construction.

The reports contain separate sections for those facts relating to running tracks, grandstands and baseball backstops. Plans of the Waukegan, Illinois, athletic field showing grading, drainage, relative location of game areas, and a cross section of the running track are contained in the *Park Manual,* Volume One, Pages 335-342. It includes, also, the design of a complete running track, a table of running track dimensions, and a discussion of track construction.

The number of workers required for the supervision and maintenance of each of the fields is indicated by the reports and in two instances itemized statements of the operating expenses are available.

Baseball Backstops

BASEBALL BACKSTOPS	BALTIMORE, Maryland	BIRMINGHAM, Alabama	CAMBRIDGE, Massachusetts
1. *Height*	1. 12′	1. 12′	1. 16′
2. *Length*	2. 50′	2. 60′ (two wings and middle section 20′ each)	2. 56′ (no wings)
3. *Distance from home plate*	3. 90′	3. 20′	3. 70′
MATERIALS USED IN CONSTRUCTION	Six 2″ upright wrought iron posts 12′ high, No. 11 woven wire, 1½″ mesh. Wire is double thickness over lower half. 8″ x 2″ plank set on edge at base	Corner posts 2″ galv. iron pipe, cross bars 1¾″ pipe No. 11 gauge wire, 1¾″ mesh	Chain link fencing 16′ high, consisting of two divisions each 8′ high, lower section No. 9 wire 2″ mesh; upper section No. 16 wire 1½″ mesh; uprights of 3″ pipe; cross bars (3) of 2″ pipe, ends of all pipe capped to exclude water.
1. *Uprights—distance apart, depth in ground*	1. 10′ apart, 4′ in ground	1. 10′ apart, 3′ in ground	1. 8′ apart, 3′ 6″ in ground
2. *Overhang?*	2. No overhang, no wings, backstop entirely straight	2. No overhang	2. 3′ overhang, No. 16 wire, 1½″ mesh
3. *Used for baseball only?*	3. Yes	3. For playground ball only	3. Yes
CONSTRUCTION COST	Posts and cross bars.....$ 3.65 (2½c per linear ft.) Wire (7c per sq. ft.)..... 105.00 Base plank ..... 1.50 Labor (4 men two days at 40c per hr.)*..... 29.60 TOTAL .....$139.75 *Erected by park department laborers; definite cost record not available; above costs on basis of regular outside labor	Material .....$265.00 (Erected by park workers)	Material ..... $400.00 Labor ..... 200.00 TOTAL $600.00
Upkeep necessary	Periodical replacement of wire	Occasional painting by park workers	Painting every four years. Cost $75.00

BASEBALL BACKSTOPS	CINCINNATI, Ohio	DETROIT, Michigan	EAST MILTON, Massachusetts
1. *Height*	1. 12′	1. 20′	1. 10′
2. *Length*	2. 70′	2. 40′	2. 48′
3. *Distance from home plate*	3. 30′	3. 60′	3. 90′
MATERIALS USED IN CONSTRUCTION	2½″ and 3″ posts, with top, center and bottom cross bars, No. 9 gauge 2″ mesh wire	4″ galv. steel pipe, No. 6 chain link wire, galv. after weaving	Fencing—No. 16 gauge 2″ mesh wire five 2½″ upright pipes with 1″ crossbars, top, center and bottom
1. *Uprights—distance apart, depth in ground*	1. 10′ apart	1. 10′ apart, 6′ in ground	1. 12′ apart, 3′ in ground
2. *Overhang?*	2. Overhang—hood of No. 17 gauge, 1½″ mesh wire	2. ———	2. No overhang
3. *Used for baseball only?*	3. Yes	3. ———	3. Yes
CONSTRUCTION COST	TOTAL $221.00	Wire ..... $160.00 Pipe ..... 35.00 Labor ..... 50.00 TOTAL $245.00	Material ..... $278.00 Labor ..... 117.08 TOTAL $395.08
Upkeep necessary			

BASEBALL BACKSTOPS	JACKSONVILLE, Florida	MILWAUKEE, Wisconsin	NASHUA, New Hampshire
1. *Height*	1. 20′	1. 24′	1. 14′
2. *Length*	2. 100′	2. 72′	2. Section behind home plate 27′ 6″; wings (at 135° angle) 53′ and 96′ 9″
3. *Distance from home plate*	3. 50′	3. 30′	3. 40′
MATERIALS USED IN CONSTRUCTION	Cyclone fence, No. 9 gauge 2″ mesh, zinc coated wire; 4″ end posts, other uprights 3″ pipe; one ¼″ cross bar, top, center and bottom	Century fence, No. 9 gauge wire, 2″ mesh; 5½″ O. D. corner posts, 4″ O. D. line posts	Chain link, 1st section 5′ high, No. 9 gauge, 2¼″ mesh wire; 2nd section 5′ high, No. 16 gauge 2″ mesh wire; 3rd section 4′ high, No. 16 gauge 2″ mesh wire. Cross bars 1½″ galv. pipe. Uprights 2″ galv. pipe
1. *Uprights—distance apart, depth in ground*	1. 10′ apart, set in 4′ of concrete	1. 8′ and 10′ apart, 4′ in concrete	1. 10′ apart, 2′ in ground
2. *Overhang?*	2. No overhang	2. No overhang	2. No overhang
3. *Used for baseball only?*	3. Yes	3. Yes	3. Yes
CONSTRUCTION COST	TOTAL ..... $551.00 (Erected by Cyclone Fence Company)	Material and labor— TOTAL .....$470.00 (Contract with Century Company)	Material ..... $279.80 Foundation ..... 26.00 TOTAL ..... $305.80 (Labor to erect backstop contributed by members of local mill club. No record available of actual time spent)
Upkeep necessary	No upkeep; painting not required	None	Recently erected; replacement of No. 16 gauge wire later, only upkeep item

BASEBALL BACKSTOPS	PHILADELPHIA, Pennsylvania	ROCKFORD, Illinois	SALEM, Massachusetts
1. *Height*	1. 20′ except cage behind home plate; sides of cage from 12′—20′; rear section 12′	1. 18′	1. 12′
2. *Length*	2. Wings, including sides of cage 94′; section behind home plate (rear cage wall) 17′	2. 40′	2. Section behind home plate 30′; wings (at 45° angle) 10′ each
3. *Distance from home plate*	3. 34′ to rear cage wall. (Space limited)	3. 60′	3. 60′, (90′ preferred but space limited)
MATERIALS USED IN CONSTRUCTION	Lower section 8′ high of chain link No. 9—2″ mesh wire. Wire rests on concrete base 6″ high; upper section 12′ high of No. 14 gauge 2″ mesh wire; wrought iron pipe posts (3″) and cross bars (2″)	No. 6 gauge wire 2″ mesh; 3″ and 2½″ steel posts set in concrete	Cyclone chain link No. 6 gauge, 2″ mesh wire; top and center cross bar rails of 1⅝″ galv. pipe; uprights of 3″ pipe.
1. *Uprights—distance apart, depth in ground*	1. 8′ apart, 2′ 6″ in concrete	1. 10′ apart, 3′ in ground	1. 10′ apart, 4′ in ground
2. *Overhang?*	2. Yes, 18′ 8″ long over cage 17′ square. (Stops 95% of foul balls)	2. Overhang (set at 45° angle) supported by projecting arms	2. No overhang
3. *Used for baseball only?*	3. Yes	3. Yes	3. Yes
CONSTRUCTION COST	TOTAL COST (material and labor) .....$1,700.00 Chain link approx. 8c per sq. ft. No. 14 gauge wire approx. 2c per sq. ft. "U" Cross bars approx. 12c per linear ft. 3″ W. I. pipe approx. 65c per linear ft. Cement base approx. $1.00 per linear ft. Concrete footing for posts approx. $3.00 each	TOTAL $325.00	TOTAL (material and labor) $203.90
Upkeep necessary	At three year periods No. 14 wire must be replaced; one coat graphite paint applied to No. 9 wire and posts; cost per year $32.50	None	Recently constructed; no upkeep expected

BASEBALL BACKSTOPS	SALEM, Massachusetts	UNION COUNTY, New Jersey	WILMINGTON, Delaware
1. *Height*	1. 12′	1. 15′	1. 12′
2. *Length*	2. Section behind home plate 40′, wings (at 45° angle) 10′ each	2. 36′	2. Sides 40′ each meet at 45° angle, 18′ from home plate
3. *Distance from home plate*	3. 60′, (90′ preferred but space limited)	3. 90′	3. 18′ from plate to corner. 12′ to sides
MATERIALS USED IN CONSTRUCTION	Page chain link No. 6 gauge, 2″ mesh wire; top and center cross bars of 1⅝″ galv. pipe; uprights of 3″ pipe; end wings at 45° angle	2″ x 4″ uprights and cross bars, top, bottom, and center Heavy chicken wire—2″ mesh, No. 14 wire, 6′ wide (Made in 6 sections—15′ x 6′ each)	No. 11 gauge woven wire; 6″ x 6″ wooden posts, 2″ x 8″ plank at bottom, 2″ x 6″ plank at top
1. *Uprights—distance apart, depth in ground*	1. 10′ apart, 4′ in ground	1. 6′ apart; removable	1. 10′ apart, 4′ in ground
2. *Overhang?*	2. No overhang	2. No overhang	2. Yes, supported by four arms of 1½″ pipe
3. *Used for baseball only?*	3. Yes	3. Yes	3. Yes
CONSTRUCTION COST	TOTAL (material and labor) $240.00	Wire (3c per sq. ft.)..... $16.20 Lumber ..... 10.06 Labor (60c per hr.) Construction of 6 frames 1 man 1½ hrs. each $5.40 Erecting 6 frames 2 men, 3 hrs. . .. 3.60 9.00 TOTAL $35.26	Wire .....$ 38.10 Posts and lumber..... 51.57 Pipe ..... 27.71 Iron (clasps) ..... 6.37 Paint ..... 1.81 Labor* ..... 49.44 TOTAL ..... $175.00 (*Erected by park commission laborers; otherwise cost would approximate $250.00)
Upkeep necessary	None	Painting woodwork every two years	Built in 1927. Rewiring and painting each 5 years

Owing to the numerous requests which are constantly being received for information pertaining to the erection of baseball backstops, it has seemed advisable to include data showing the types now being used and the cost of construction in a number of cities.

The individual reports indicate the different kinds of backstops as well as variations in the dimensions of those similar in type. To some extent these differences are accounted for by the limitations in space between the home plate and the backstop. Galvanized pipe posts set in concrete and standard wire fencing are the materials most generally used.

Winter Sports

In certain sections where the climate permits, park and recreation authorities are increasingly interested in providing more adequate equipment for the enjoyment of outdoor winter sports. Accordingly, specific information is provided regarding the types of toboggan slides, ski jumps, and outdoor ice skating and hockey rinks now being used in several communities.

The reports give in considerable detail facts relating to methods of construction, materials used, lighting, workers required for supervision and maintenance, and, as far as the information is available, itemized statements covering cost of construction and operation for each facility. Although of interest to a more limited group, it is believed the actual experience of the different cities reporting will be helpful to those concerned in a practical way with this particular phase of community recreation.

Play Areas, Chapter Nine, and the *Park Manual,* Volume One, Pages 376-384, contain a number of illustrations and additional information regarding problems of construction and use of various kinds of winter sports facilities.

OUTDOOR ICE SKATING RINKS	CLAREMONT, New Hampshire Monadnock Park	EVANSTON, Illinois	GLENS FALLS, New York
CONSTRUCTION			
1. *Location*	1. In swamp	1. Twelve rinks on tennis courts, football fields, lagoons, playgrounds and school grounds	1. Five rinks on tennis courts, athletic fields, playgrounds and two vacant lots
2. *Size*	2. 440′ x 200′	2. Average size, 4,000 sq. ft.	2. (a) 300′ x 200′ (b) 170′ x 70′ (hockey rink) (c) 100′ x 100′ (d) 100′ x 75′ (e) 100′ x 100′
3. *Kind of banks*	3. None	3. Clay banks and plowed furrows	3. ———
1. *Method of making ice*	1. Spray	1. Combination flooding and sprinkling	1. Water sprayed on wet snow, rolled to hard ice bed
2. *Equipment used in making and cleaning ice*	2. 350′, 1¼″ hose, spraying nozzle	2. 2″ rubber hose; metal scrapers 3′ wide	2. Roller and 1¼″ hose; ice plane loaned; 8′ snow plow loaned for heavy snow falls; hand ice plane; five snow plows
1. *Describe shelter*	1. 20′ x 12′, stationary, cost $200	1. Some portable; others stationary	1. Permanent field house 32′ sq.
2. *Rinks lighted?*	2. Yes; six poles around rink with 2—500 watt lights each	2. Yes; 2—1000 watt flood lights on each rink	2. Yes; shadowless lighting on hockey rink considered finest system in use; flood lights on large rink; street lights on others
3. *Hockey rink used? Construction*	3. No	3. No	3. Yes; built on clay tennis courts; fence built in sections
CONSTRUCTION COST	Lighting ..... $ 45.00 Water ..... 40.00 Labor ..... 25.00 Hose ..... 192.50 TOTAL $302.50		Hose ..... $57.00 (Other items not segregated in accounting records)
OPERATION			
1. *Employees*	1. One man (year round employee), supervises rink, prepares and keeps ice in condition	1. One caretaker at each rink; four crews of three men each for night flooding and cleaning	1. Superintendent, $25 per wk. Two men regularly on day shift, more when necessary, 40c per hr. Two men on night shift, 40c per hr. Extra workers employed during storms, 40c per hr.
2. *When is work done?*	2. After 10 p.m.; 2½ hrs. required per night for scraping and spraying	2. After 9:30 p.m.	2. 5:30—6:30 p.m., after 10 p.m. other times as necessary or when weather conditions are favorable
1. *Charge for use of rink?*	1. No	1. No	1. No
2. *Hours open*	2. All day until 10 p.m.	2. All day until 9:30 p.m.	2. 9 a.m.—10 p.m.
3. *Attendance per season*	3. Not available	3. 125,000 per season on 12 rinks	3. 19,884 at large rink 1,500 at small rinks 814 at hockey rink
4. *Number of skating days*	4. 8—10 wks.	4. Average 40 days	4. Large rink used 49 days
OPERATING COST	*Labor ..... $300.00 Light (estimate)..... 45.00 Water ..... 40.00 TOTAL ..... $385.00 (*$70.00 per season for removing snow)	One Rink Per Season Labor ..... $333.20 Equipment and fuel..... 41.67 TOTAL $374.87	Operating expense items not segregated from those for toboggan slides

OUTDOOR ICE SKATING RINKS	LYNN, Massachusetts Lynn Wood Playground	MANCHESTER, New Hampshire Derryfield Park	NASHUA, New Hampshire South Common
CONSTRUCTION			
1. *Location*	1. Athletic field	1. On pond; divided into three sections—hockey rink, area for adults only, and area for parents and children	1. On athletic field
2. *Size*	2. 125′ x 80′	2. 600′ x 250′—300′	2. 400′ x 200′
3. *Kind of banks*	3. 12″ x 2″ planks with virgin loam soil packed against them	3. Natural banks except for hockey rink	3. No banks, level field
1. *Method of making ice*	1. When ground sufficiently frozen to hold water, area is flooded; after body of ice forms, spray is used	1. After pond freezes, water sprayed on by portable pump with hose extended through ice	1. Build up ice by spraying with 2″ hose
2. *Equipment used in making and cleaning ice*	2. ¾″ spraying nozzle; hand scrapers and pushers	2. Fairbanks Morse pump, 1½″ suction; ¾″ hose with spraying nozzle; three horse scrapers; twelve hand scrapers; two hand planes; one horse plane	2. Hose and nozzle; horse scraper for heavy snow; hand scraper for cleaning ice
1. *Describe shelter*	1. Frame building 30′ x 18′, contains stove	1. Building consists of three rooms, one 18′ x 15′ with benches for skaters; two checking rooms 18′ x 9′ and 15′ x 12′	1. No shelter
2. *Rinks lighted?*	2. Yes; 600 watt flood light on rink; also from lights on toboggan slide	2. Yes; 48—75 watt lights on one side; 2—250 watt flood lights on bank	2. Yes; pole in center of rink with 4—500 watt flood lights on cross bars
3. *Hockey rink used? Construction*	3. No	3. Yes; sides of planks and smaller lumber, 16′ sections, 2′ high on sides and 3′ on ends.	3. No
CONSTRUCTION COST	Lumber .....$80.00 Labor ..... 15.00 TOTAL $95.00	Hockey rink (material and labor) $50.00	Labor for building ice first time $10.00 (Requires two men all night)
OPERATION			
1. *Employees*	1. Man $30 per wk. cares for rink and supervises nearby toboggan in the morning Two men who operate toboggan at night, attend rink (See report of toboggan slide)	1. Four men full time at $3.98 per day, work continuously at scraping, cleaning and building ice	1. Supervisor, 8 hrs. at $20 per wk. Two men, 7 hrs. (night) at $22 per wk., care for ice
2. *When is work done?*	2. Late afternoon	2. Morning, afternoon and night each day	2. After 10:30 p.m.
1. *Charge for use of rink?*	1. No	1. No	1. No
2. *Hours open*	2. 8 a.m.—10 p.m.	2. 10 a.m.—10 p.m.	2. 2—10:30 p.m.
3. *Attendance per season*	3. Not available	3. Estimate 400 on week days; 1,200 to 2,000 on Saturdays and Sundays	3. Not recorded
4. *Number of skating days*	4. 37 in 1927	4. Depends upon weather	4. 8—10 wks., depending upon weather
OPERATING COST	1927 Light .....$ 48.00 *Labor ..... 158.36 TOTAL .....$206.36 (No charge for fuel and water) *See report of Lynn, Massachusetts, toboggan slide	Labor cost varies with length of season Sharpening knives.....$6.00	1927 Payroll .....$894.60 Water ..... 44.97 Light ..... 46.39 Supplies ..... 11.35 Express ..... 2.50 TOTAL $999.81

TOBOGGAN SLIDE, MONADNOCK PARK, PLAYGROUND COMMISSION, CLAREMONT, NEW HAMPSHIRE

The above illustrations show the construction of the enclosed starting platform as well as the approach, and the elevation of the slide. (See report on Page 352)

TOBOGGAN SLIDES	CLAREMONT, New Hampshire	EVANSTON, Illinois	GLENS FALLS, New York
CONSTRUCTION	Monadnock Park	Lake Front Park	Crandall Park
1. *Length*	1. 100′	1. 80′	1. 250′
2. *Length of outrun*	2. 880′	2. 500′	2. 1000′ (depends upon weather)
3. *Height at top*	3. 15′	3. 42′	3. 52′
4. *Length of sections*	4. 16′	4. 10′	4. Not constructed in sections
5. *Kind of wood used*	5. Spruce	5. Pine	5. Hard pine floor, spruce sides
1. *Number of troughs*	1. Two	1. One	1. Two
2. *Width at top*	2. 30″	2. 26″	2. ———
3. *Width at bottom*	3. 19½″	3. 24″	3. Uniform
4. *Height of sides*	4. 8″	4. 8″	4. ———
1. *Direction of slide*	1. East	1. North	1. North
2. *Elevated or resting on ground?*	2. Eight sections elevated; remainder rest on ground	2. Rests on 2″ x 2″ cross pieces	2. Elevated
3. *Size of starting platform*	3. 15′ x 10′	3. 16′ x 10′, enclosed with solid board fence 4′ high	3. 16′ x 16′
4. *Number of tilting boards*	4. Two	4. One	4. Two
1. *Kind of fence*	1. Picket fence, 3″ x 1″	1. 3′ railing down both sides of slide	1. ———
2. *Nature of approach to platform*	2. Steps up to platform	2. Ramp with trough for returning sleds	2. Cleated walk
3. *Lighted for night use?*	3. Yes; 1—500 watt light on platform illuminates slide; 1—500 watt at bottom of slide; 2—1000 watt floods on hillside back of platform	3. Yes; 2 flood lights on top of slide projected down runways	3. Yes; flood light at top and bottom of slide, directs light to center between troughs
CONSTRUCTION COST	Labor .....$200.00 Material ..... 325.00 TOTAL $525.00		TOTAL $2,600.00
OPERATION *Employees*			
1. *Number of workers, part and full time during season*	1. One full time worker	1. Four full time workers— Two starters One checker Ticket seller	1. One at starting point during day and evening; one at bottom evenings; one at end of outrun when attendance large
2. *Wages and duties*	2. $3.60 per day (approx. 15 hrs.), keeps slide in condition and supervises its use. When slide is not in use, worker assigned other tasks	2. 50c per hr.	2. 40c per hr.
1. *Number of toboggans available*	1. Five	1. Twelve	1. Twenty-four
2. *Storage facilities*	2. In small house	2. Stored in nearby shelter house	2. Stored on racks in small house at bottom of slide
3. *Slide knocked down and stored in summer?*	3. Yes	3. Yes	3. No, plan of construction prevents
1. *Charge for use of—slide, toboggan*	1. No charges	1. No charge for slide; 50c per hr. for toboggan	1. No charges
2. *Method of collecting fees*	2. ———	2. Tickets sold	2. ———
3. *Income*	3. No income	3. During favorable weather, rental fees more than meet expenses. For days of large attendance, receipts will average $60	3. No income
1. *Hours slide is used*	1. 7 a.m.—10 p.m.	1. 1—10 p.m.	1. 2—10 p.m. school days; 10 a.m.—10 p.m. Saturdays; 2—6 p.m. Sundays
2. *Number of days used*	2. 1926—56 days 1927—22 days	2. 20 days	2. 54 days—(Dec. 26—March 10)
3. *Number of persons using slide per season*	3. Average 150 in afternoon—150 at night (estimate)	3. Season 1927-28—5,000	3. 25,882
4. *Children permitted to use slide?*	4. Yes	4. No	4. Yes
OPERATING COST	Wages, 22 days at $3.60 per day .....$79.20 Light ..... 30.00 Paint (per year)..... 50.00 Labor to assemble slide..... 70.00 Labor to dismantle and store. 50.00 TOTAL $279.20	Wages .....$300.00 Light ..... 25.00 Material ..... 50.00 Repairs ..... 50.00 Labor to assemble slide..... 150.00 Labor to dismantle and store. 150.00 TOTAL $725.00	Operating expense items not segregated from those for skating and hockey rinks

TOBOGGAN SLIDES	LYNN, Massachusetts	MANCHESTER, New Hampshire	SPRINGFIELD, Massachusetts
CONSTRUCTION	Lynn Wood Playground	Derryfield Park	Forester Park
1. *Length*	1. 600′	1. 1,800′	1. 440 yds.
2. *Length of outrun*	2. 400′	2. 440′	2. 100′
3. *Height at top*	3. 80′	3. 30′	3. Natural incline
4. *Length of sections*	4. 12′	4. 16′	4. 16′
5. *Kind of wood used*	5. Pine, treated with creosote	5. Cedar and chestnut	5. California Red Wood
1. *Number of troughs*	1. Two	1. Two	1. Two
2. *Width at top*	2. 36″	2. 29½″	2. 29″
3. *Width at bottom*	3. 30″	3. 23½″	3. 27″
4. *Height of sides*	4. ———	4. 12″	4. ———
1. *Direction of slide*	1. North	1. East	1. North
2. *Elevated or resting on ground?*	2. Elevated on low trestle near ground for full length of slide	2. First fourteen sections are elevated	2. Rests on ground entire length of slide
3. *Size of starting platform*	3. 24′ x 10′	3. ———	3. 28′ x 14′
4. *Number of tilting boards*	4. None	4. Two	4. Two
1. *Kind of fence*	1. No fence	1. Picket fence 4′ high of 1¼″ x 3″ boards	1. 2″ x 4″ posts with one 2″ x 4″ railing along top
2. *Nature of approach to platform*	2. Platform against bank, steps on both sides of troughs	2. Steps (at rear of platform) and smooth runway	2. Road beside platform which is closed when slide is in use; level approach.
3. *Lighted for night use?*	3. Yes; 4—600 watt flood lights—2 on starting platform, 1 focused on platform and other down the slide; 1 on post midway down slide; 1 at bottom directs light upward toward slide.	3. Yes; 2—250 watt flood lights and 4—100 watt lights on platform; 75 watt lights at 50′ intervals between troughs	3. Yes; 2″ x 4″ posts between troughs support festoons of lights
CONSTRUCTION COST	TOTAL .....$1,010.00 (Does not include electrical work, which was donated by General Electric Company)	Material .....$1,684.00 Labor ..... 800.00 TOTAL $2,484.00	Lumber .....$ 448.00 Lighting ..... 1,500.00 Labor ..... 732.00 TOTAL $2,680.00
OPERATION			
Employees			
1. *Number of workers, part and full time during season*	1. Three full time workers—one man in morning, two men at night	1. Four full time park men	1. Three full time workers; two men and one policeman
2. *Wages and duties*	2. $30 per week each, signal man and starter keep slide in condition (same workers also care for nearby iceskating rink)	2. Manager (head starter) $27.96 per wk. Assistant starter $25.76 per wk. Signal man $22.08 per wk. House man $22.08 per wk. (When weather conditions prevent use of slide they are assigned other park work)	2. Starter and signal man, $33 per week, each
1. *Number of toboggans available*	1. None; people bring their toboggans	1. One hundred	1. Fifty
2. *Storage facilities*	2. ———	2. Old house adjacent to slide	2. Portable house set up for winter and taken down during summer. Toboggans rented from private concern
3. *Slide knocked down and stored in summer?*	3. Yes	3. No	3. Only parts resting on level ground in danger of rotting are taken down
1. *Charge for use of—slide, toboggan*	1. No charges	1. No charge for use of slide; $2 deposit and 50c per hr. rental for toboggan	1. No charge for slide; $5 deposit and 40c per hr. rental for toboggan
2. *Method of collecting fees*	2. ———	2. Supervisor at slide collects rental fees	2. ———
3. *Income*	3. No income	3. $150 to $200 per season (estimated income)	3. Toboggans rented from outside source
1. *Hours slide is used*	1. 4—10 p.m.	1. 2—10 p.m.	1. 10 a.m.—10 p.m.
2. *Number of days used*	2. Depends upon weather	2. 25—70 days per season	2. 9—50 depending upon the weather
3. *Number of persons using slide per season*	3. 30 per night is large attendance	3. 150—200 per week	3. 1,440 (average)
4. *Children permitted to use slide?*	4. Yes	4. No	4. Only when accompanied by parents
OPERATING COST	Wages .....$180.00 Light and material..... 47.00 8 men to assemble slide, $5 per day ..... 40.00 8 men to take down and store, $5 per day..... 40.00 TOTAL $307.00	Not available	1927 Wages .....$605.00 Light ..... 94.00 Supplies ..... 19.00 TOTAL .....$718.00 1926 TOTAL $696.00

TOBOGGAN SLIDES CONSTRUCTION	ST. PAUL, Minnesota Highland Park
1. *Length*	1. 150′
2. *Length of outrun*	2. 400′
3. *Height at top*	3. 75′
4. *Length of sections*	4. 12′
5. *Kind of wood used*	5. Pine
1. *Number of troughs*	1. Two
2. *Width at top*	2. 30″
3. *Width at bottom*	3. 22″
4. *Height of sides*	4. 12″
1. *Direction of slide*	1. ———
2. *Elevated or resting on ground?*	2. Rests on ground except at two points where it is elevated to bridge a gully
3. *Size of starting platform*	3. 12′ x 12′
4. *Number of tilting boards*	4. None
1. *Kind of fence*	1. No fence
2. *Nature of approach to platform*	2. Stairs
3. *Lighted for night use?*	3. Yes; festoons of 40 watt lights entire length of slide
CONSTRUCTION COST	Material .....$230.00 Labor ..... 250.00 TOTAL $480.00

TOBOGGAN SLIDES (Continued) OPERATION	ST. PAUL, Minnesota Highland Park (Continued)
Employees	
1. *Number of workers, part and full time during season*	1. Two full time workers when weather is favorable
2. *Wages and duties*	2. Starter 40c per hr.; maintenance 50c per hr.
1. *Number of toboggans available*	1. Thirty-six
2. *Storage facilities*	2. ———
3. *Slide knocked down and stored in summer?*	3. Yes
1. *Charge for use of—slide, toboggan*	1. No charge for slide; 25c for toboggan
2. *Method of collecting fees*	2. Tickets for rental bought at refectory
3. *Income*	3. Not available
1. *Hours slide is used*	1. Seven hours
2. *Number of days used*	2. 50 days per season
3. *Number of persons using slide per season*	3. 2,500 per season.
4. *Children permitted to use slide?*	4. If accompanied by an adult
OPERATING COST	Not available; work done by general park employees.

SKI JUMPS CONSTRUCTION	CLAREMONT, New Hampshire Monadnock Park	MANCHESTER, New Hampshire Derryfield Park	ST. PAUL, Minnesota Mounds Park
1. *Length*	1. 175′	1. 300′	1. 200′
2. *Height at start*	2. 80′	2. 48′	2. 64′
3. *Height at take-off*	3. 4′	3. 5′	3. 4′
4. *Width of jump proper*	4. 6′	4. 16′	4. 3′
5. *Width of approach*	5. ———	5. ———	5. ———
6. *Dimension and grade of alighting ground*	6. 30′ wide; 34° slope	6. ———	6. ———
1. *Height of railings*	1. 3′ 6″	1. 3′	1. 2′ 8″
2. *Size of starting platform*	2. 12′ x 8′	2. 12′ x 8′	2. 10′ x 10′
3. *Length of outrun*	3. 400′	3. 700′	3. 100′ (approx.)
4. *Materials used in construction*	4. Spruce	4. Chestnut and spruce	4. Pine
1. *Knocked down and stored in summer?*	1. No	1. No	1. No
2. *Lighted for night use?*	2. No	2. No	2. No
CONSTRUCTION COST	Grading .....$1,214.07 Construction ..... 361.31 Trestle and addition..... 563.41 *Survey (donated)..... 8.80 TOTAL .....$2,147.59 (*Regular cost $150)	*TOTAL (approx.).....$400.00 (*Mostly labor; lumber used from wrecked building. Required ten men two weeks to build.)	Park labor used—cost items not segregated
OPERATION *Employees*	Outing Club members and high school boys care for it. No special supervision	Two men at $5 per day, two days per week. Collect snow and keep jump in condition	Park laborers at 50c per hr., 8 hrs. per day
1. *Charge for use of jump or skis?*	1. No charges	1. No charges	1. No charges
2. *Hours jump is in use*	2. ———	2. All day Saturday and Sunday until dark	2. Saturday and Sunday afternoons
3. *No. of persons using jump*	3. Not recorded	3. Not recorded	3. 300
4. *No. of days in use*	4. Depends upon season	4. Two days per wk., 8—12 wks.	4. 30
OPERATING COST	No items available; practically no expense for operation	Labor only cost—approximately $200.00	Labor is only operating cost; items not segregated

Beauty on the Playgrounds*

By

David G. McMillan,

Landscape Architect, Shreveport, Louisiana

I have been asked to talk on a subject which means finish. Anything which has finish must have good construction underneath, and to have good construction it must have been worked out according to a plan on some pre-conceived idea which was set down, worked over and settled upon —in other words a design or plan. Design means order and order is the keynote of beauty.

To me decoration means making a utilitarian element a thing of beauty in itself. We may soften, harmonize and partially cover up, but we can never hide it because beauty is not an ornament added to an object but an essential part of the object, and it has its reason for being there in the original structure or design.

Beauty cannot be secured without design and the test of beauty can be applied. Does it satisfy the reason and at the same time perform a function?

Let us apply our definition of beauty specifically to a playground. The average individual, asked what a playground is, will picture a dusty lot, devoid of plants, lacking in turf, with pipe frames everywhere and perhaps a park building sadly in need of repair. Why let him see these things when our definition of beauty will let us enclose our playground with plants or shrubs? Why have ugly things on the playground when our definition will permit us to repair the windows, put paint on our buildings and harmonize it by the use of shrubs, vines and trees? If sod cannot be maintained on the playground, we can surface it in such a way that there will be no dust and spots of color may be added which make for beauty.

Beauty on the playground depends on certain economic requirements—the size of the area and on the willingness of the city to maintain it. This I believe to be the most important point—the willingness to maintain the beauty created. I have always believed that if a playground is not to be maintained after it is built, it ought not to be constructed. Similarly, if beauty is not to be maintained, it should not be created. People will be more quickly affected by the lack of maintenance of plants, buildings, and equipment, than by the total absence of these elements. No matter what the size of the area, providing it is maintained in accordance with the design, it is possible to beautify it, but without this maintenance beauty is impossible.

Economic conditions enter into the problem of playground beauty in several ways. First, it costs more to beautify a poorly designed playground than one which is well planned, since it takes more material, more labor, and, after that, more maintenance. Again, a park means to most people a decorated area which is welcome in a sub-division while a playground is not always so cordially received. Therefore, let us make our play areas into play parks. Let us see that the areas are large enough to answer the requirements. If it is to be a playground, make it some six or ten acres, lay it out economically and decorate the entrances, borders and internal sections which need not be screened off or harmonized. If the area is smaller, build the fences a few feet inside the property line and plant shrubs and vines outside the fence. Trees can be grown within a playground but they must be protected from the children who play around them.

We all love beauty and will pay for it—all that we can afford. There is nothing so sought after and nothing that commands so high a price, and beauty on our playgrounds is no exception to these rules.

*Extracts from address given at the convention of the Southwestern District Recreation Workers held under the auspices of the P.R.A.A. at Shreveport, Louisiana.

Neighborhood Demonstrations in Milwaukee

The Extension Department of the Milwaukee Public Schools, instead of having one large city-wide playground demonstration, is following the plan of promoting on each playground a demonstration for the immediate community. In this way, it is believed, many more people have an opportunity to see the program and many of the difficulties of the city-wide demonstrations are eliminated.

In preparing for the demonstration dodgers are made for house-to-house distribution; playgrounds are beautifully decorated and lighted for the occasion; placards and posters are made on

the playground and displayed in local store windows and the playground children wear tags several days before the event, giving publicity for the occasion. Advertising groups stage miniature parades, carrying banners and doing stunts to announce the production on the following evening. Boys are enlisted as poster bearers at busy corners and sandwich men carry placards in the business and residential sections surrounding the playground. Everyone in the community is invited to see the demonstration. The Department provides costumes, benches and lights for the exhibition. These are taken from ground to ground and set up each evening for the different affairs.

The program consists of a parade of all the children attending the playground. As many as possible of the boys and girls are in costume. Very definite restrictions, however, are placed on the selection of costumes. Girls are not permitted to dress as boys or boys as girls, and no child is permitted to dress as a tramp. Constructive suggestions are given by the play leaders on each ground. Children may wear fancy caps or things they have made on the playground if it is not possible to provide a costume. Many banners are carried explaining the parade and the activities of the playground. The parade ends at the playground, where a demonstration is given of the activities conducted during the summer. At this time there is also a demonstration of the handcraft classes of the playground.

Recreation Activities for Women and Girls in Business and Industry*

By

Augusta Harris,

Director of Women's and Girls' Activities, Highland Park, Michigan

Before planning an industrial program it is necessary to have some knowledge of your community such as may be gained by a brief study. Our plan of procedure is to secure the name of the plan, the approximate number of women employed, their age, and information as whether they are married or single, and whether they live at home. We try to find out whether a girl's work is active or passive and whether she has a hobby and belongs to any type of club.

We have found that the best way to reach the employed girls and to build up clubs for them, is through personal contact. I have gone personally to the various factories and shown an interest in what the girls are doing and in this way have become acquainted with them. It is particularly important to make the acquaintance of two or three girls whom you can use as leaders.

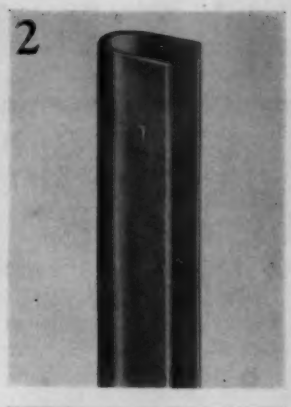
As an example of the way we go to work—we went to one of the factories and found there a girl who is a good pianist. We sang and one or two of the girls clogged. I had with me a balloon, which three or four of the girls started to bat back and forth. Other girls joined in until a large group was taking part. Then we got the girls interested in playing volley ball, and newcomb. Most of the girls eat their lunch in about twenty minutes and are free for from a half an hour to forty-five minutes to play. Now that things are started the next step may be to suggest a supper followed by games. After the girls have become accustomed to coming, it will be well to invite some of the boys to come. We have found dramatics very popular with business and professional girls. Dramatic clubs in which the girls can take part, choose their own plays and their own casts add interest.

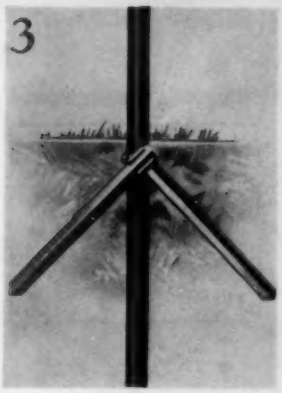
For handcraft classes, select something the girls can make and use such as beaded pocketbooks, knitted ties and belts and dyeing of scarfs and handkerchiefs. Help them make their own Christmas cards and gifts such as book ends.

The charm classes held last year in cooperation with the Y. W. C. A. were very popular. The care of the hands and face; what and how to read; the proper kinds of dress; the development of personality; the budgeting of salaries and similar subjects were all discussed. We also had ukulele and glee clubs and one class studied the composers.

On the physical side we planned for various classes in gymnasium, finding out first what activities the girls were most interested in, what work they had had in the grade and high schools and we developed a fine course in physical education, with some Swedish and Danish work. Bowling, tumbling, and pyramid building, basketball and field hockey were also on the program.

*Extracts from talk given at district conference held in Detroit, Michigan, April, 1929.





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OUTDOOR RECREATION LEGISLATION AND ITS EFFECTIVENESS

A summary of American legislation for public outdoor recreation, 1915-1927, together with a study of the association between recreation areas and juvenile delinquency in Manhattan, 1920.

by Andrew J. Truxal
Price $3.50

This book is volume No. 311 in the Columbia Studies in History, Economics and Public Law. A complete, classified catalogue will be sent upon request.

RECREATION LEADERS

This book will put you in touch with all the legal aspects of the public provision for recreation in the United States (Local, State and Federal).

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Here you will find answers to such questions as: How much recreation space does a city need? How should the areas be located? How can adequate provision be made for recreation in the future growth of the city?

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Hartford Boys Exercise Constructive Ingenuity in a Backyard

To the Editor of The Republican:—

During the summer months, fourteen small boys between the ages of ten and fourteen years, under the direction of A. G. Kamm of Hartford found a new form of recreation that was both educational and interesting. To keep the boys off the streets was Mr. Kamm's idea, and here is what happened: A few steps from Hartford's business section and still closer to the state Capitol, Mr. Kamm made his home. In the rear of his house he had a large yard. Part of this, namely some twelve feet wide and sixty feet in length, he turned over to the boys. In this space they built a miniature countryside consisting of fourteen towns and villages.

Over 1,700 parts were necessary to complete this idea. Over twenty weeks were required to construct the following: 210 feet of concrete

**Courtesy of the Springfield, Massachusetts, Daily Republican—April 24, 1929*

roads, 700 feet of telephone, electric light, street lights, 70 feet of high tension line, three concrete bridges, four wooden bridges, trestles, railroad bridges, five types of railroad station represented in the eight stations built, 39 feet of trolley lines, 106 feet of electric railroad lines, with tunnels made of concrete. Prominent buildings, such as the Travelers' Insurance, State Capitol and department store, were made of wood. Hundreds of facades of dwellings, churches, banks, also appeared. There were parks, rivers, lakes, cemeteries, and an airport. In fact, the only thing missing was a theatre and a police station. At that, the state prison, with its grim gray walls and guard houses, was shown.

The Hartford Courant of July 23, 1928, gave the idea a front page story and a four-column picture. The Travelers' Insurance Company Beacon also gave them a story. Now the boys are getting ready to build Miniature Hartford. They have their own form of government.

This is Mr. Kamm's idea of helping the boys to help themselves and yet get some recreation. If you would like pictures, I am sure you can have them on request. Twenty-five boys are enrolled this season and Mr. Kamm has already arranged for theatre parties, banquets, and these boys know they will get what they are promised.

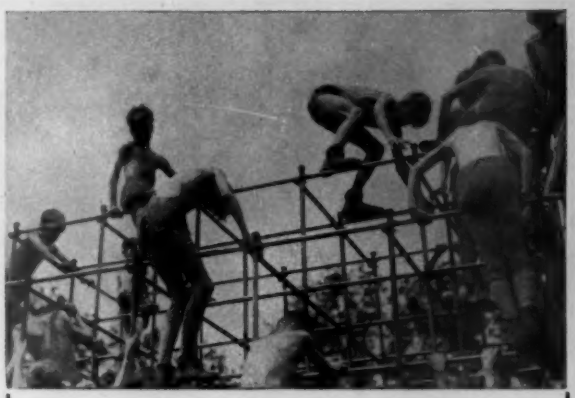
As for Mr. Kamm, he is cashier for a laundry in Hartford and does this work after hours for better boys and better citizens and to help reduce crime.

CLARENCE MCCARRON

Hartford Court, April 19, 1929

Membership Extended.—At the annual convention of the American Association for Promoting Hygiene and Public Baths, held in Buffalo, New York, two resolutions were passed which will very materially change the membership of the Association. As the result of the first resolution eligibility for membership will be extended to municipal bodies (city councils, park commissions and similar groups), institutes and welfare organizations (Y. M. C. A.s, fraternal orders, etc.), commercial bathing places (amusement parks, beaches and hotels) and manufacturers of materials and equipment used in bathing places. All of these members will be entitled to have as many representatives as they may desire at the meetings of the Association although each membership will be allowed only one vote.

The second resolution provides that members of the Association in any state may with the consent



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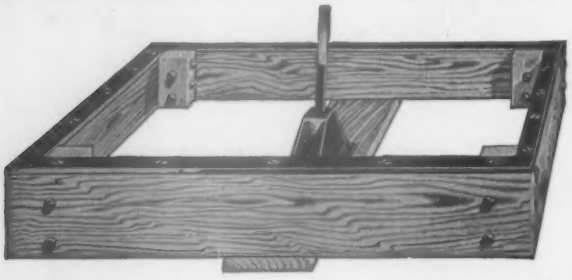

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of the Association organize a state section and cooperate with any state authorities in bringing about a proper regulation and supervision of pools and other bathing places.

Book Reviews

TEACHING HEALTH IN FARGO. By Maud A. Brown. Published by the Commonwealth Fund, New York. Price, $1.50

An interesting section of this book dealing with the methods used in teaching health in connection with the health demonstration in Fargo, North Dakota, is one telling of the devices and contests used in connection with the teaching process and the various projects which were carried on.

SCHOOL CRAFTS AND PROJECTS. Dennison Manufacturing Company, Framingham, Massachusetts. Price, $2.00 for series of four books

Teachers and recreation workers will welcome the information that the Dennison Manufacturing Company has issued a series of four books entitled, *School Crafts and Projects,* containing detailed information for making a large number of handcraft articles. Book No. 1 has to do with crepe paper and describes such projects as paper folding, poster flowers, crepe paper flowers, gummed seal projects, crepe paper vegetables and color charts. Book No. 2 describes such projects as crepe paper cutouts, decorated boxes and lettering portions, transparencies, table decorations, holiday gifts and cards. Book No. 3 outlines methods of making posters, banners, lanterns, kites, crepe twist flowers, crepe rope weaving, caps and regalia and sealing wax craft. Book No. 4 takes up projects such as fruit and vegetable dolls, costume dolls, occupational dolls and costume posters.

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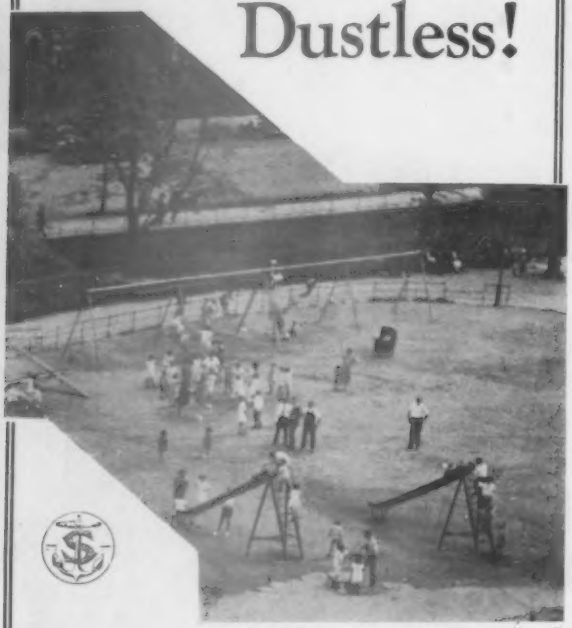

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In connection with each project information is given regarding material required and each step in the making of the article is carefully described. There are many illustrations which clarify the directions. The books are published in very practical style and each is full of suggestions for the handcraft program.

BIBLIOGRAPHY OF CAMP SAFETY HYGIENE AND SANITATION. Prepared by Mildred B. Pressman. Education Division, National Safety Council, One Park Avenue, New York City

In February, 1929, representatives of fourteen national organizations came together to discuss camp safety. An immediate outcome of the meeting has been the preparation of this bibliography which *is* divided into two main sections—the first, *Camp Construction and Mechanics of Organization*, and the second, *Camp Activities*.

OUTDOOR RECREATION LEGISLATION AND ITS EFFECTIVENESS. By Andrew Truxal. Columbia University Press, New York City. Price, $3.50

This study of American legislation for outdoor recreation, 1925-1927, will be of keen interest to recreation workers and officials. The subject is discussed under the headings *Recreation as Affected by City Planning and Zoning, The Municipality as a Unit in Conducting a Program of Recreation, Other Forms of Municipally Conducted Recreation, Liabilities of Cities when Conducting Public Outdoor Recreation* and *State and Federal Provisions for Public Outdoor Recreation.* In Part 2, Dr. Truxal discusses the social significance of recreation and raises the question as to whether the provision of recreation facilities is accomplishing what is claimed for it. He describes and interprets the study made of the association between recreation areas and juvenile delinquency in Manhattan in 1920, as a result of which he draws the conclusion that "there appears to be a moderate association between the presence of recreation areas and the absence of juvenile delinquency, providing we have taken into account a sufficient number of environmental influences." Dr. Truxal warns against "any generalization which would assign to this one environmental factor—recreation spaces—the predominating influence in the control of delinquency."

GOLF GUIDE 1929. Spaldings Athletic Library. American Sports Publishing Company, New York. Price, 35¢

The 1929 Golf Guide, which is now available, contains information about championships and tournaments, facts about golf architecture and points of playing, a glossary of technical terms in detachable form, the official rules of golf and instructions for players.

SUCCESSFUL STUNTS. Edited by Katherine Ferris Rohrbaugh. Doubleday, Doran and Company, Inc., Garden City, New York. Price, $1.50

Fifty original stunts for parties, socials, camp and conferences have been brought together in this book. They range from the humorous to the dramatic and can be presented as simply or elaborately as desired. The stunts are classified according to the number of players required and the time necessary for presentation. Leaders in social recreation will find this book suggestive.

MANUAL OF PHYSICAL EDUCATION. Prepared by N. P. Nelson and Winifred Van Hagen. Division of Health and Physical Education, California State Department of Education, Sacramento, California

The State of California is to be congratulated on this splendid volume with its graded program of activities to be adapted by the various school systems of the state to the school situation, time of the year, and the developing needs of the child. Formal calisthenics do not appear in the manual. "Being artificial movements, unrelated to child life situations," states the introduction, "they are uninteresting to children and have very little, if any carry-over value. The use of calisthenic drills led by a phonograph is not acceptable as part of the physical education program. They are not adapted to the varying strength of the children of different ages and are never used in the out-of-school play life of

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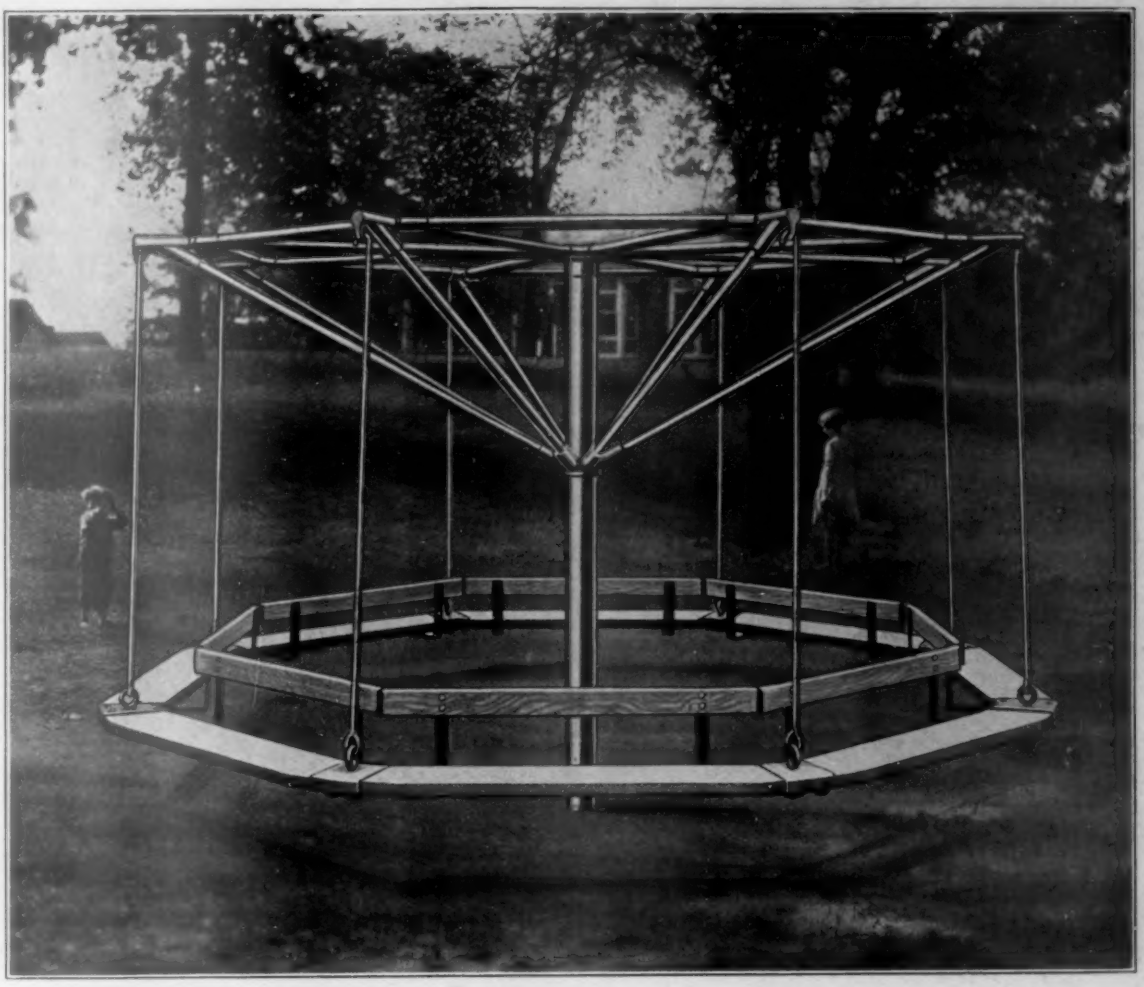

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Rural and Small Community Recreation

The Playground and Recreation Association of America announces that the revision of the handbook, *Rural and Small Community Recreation*, first published in 1920, is ready for distribution. Greatly enlarged over the first edition, the handbook contains chapters on *Home Play, School Play, Picnics, Social Recreation, Contests and Old Time Games, Community Drama, Community Music, The County Fair, Money Raising Stunts,* and *Community Recreation Meeting Places and Activities.*

The book is practical rather than theoretical, and as far as possible the subject matter has been devoted to activities and how they are conducted.

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child." Very careful preparatory work was done in the selection of the activities to be included and each was held up to severe tests. The following criteria were kept in mind while the section of material was made:

1. There should be no duplication of activities under different titles.
2. The activity should provide for the largest possible number actively participating at the same time in any one group.
3. There should be some activities for use in the schoolroom and a great deal for use on the playground.
4. Some activities should be included which require no equipment except play space.
5. The description of each activity should be concise, accurate and complete.
6. Some of the less vigorous forms of activities should be included for handicapped pupils.

DAVID THE INCORRIGIBLE. By E. J. Craine. Published by Rae D. Henkle Company, Inc., New York. Price, $1.75

David leaves home. The adventures he has as the result of his wanderings, the contrast between the hectic streets of New York and the fastnesses of the Kentucky highlands and the thrills they contain, can not fail to make an appeal to boys. And as a happy ending comes the pleasant and satisfactory tale of his return home.

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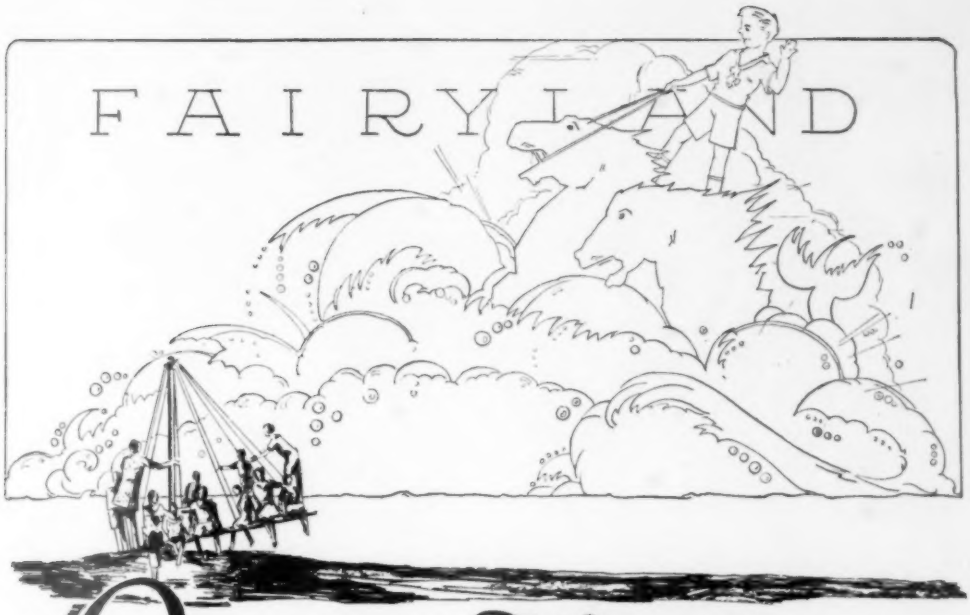

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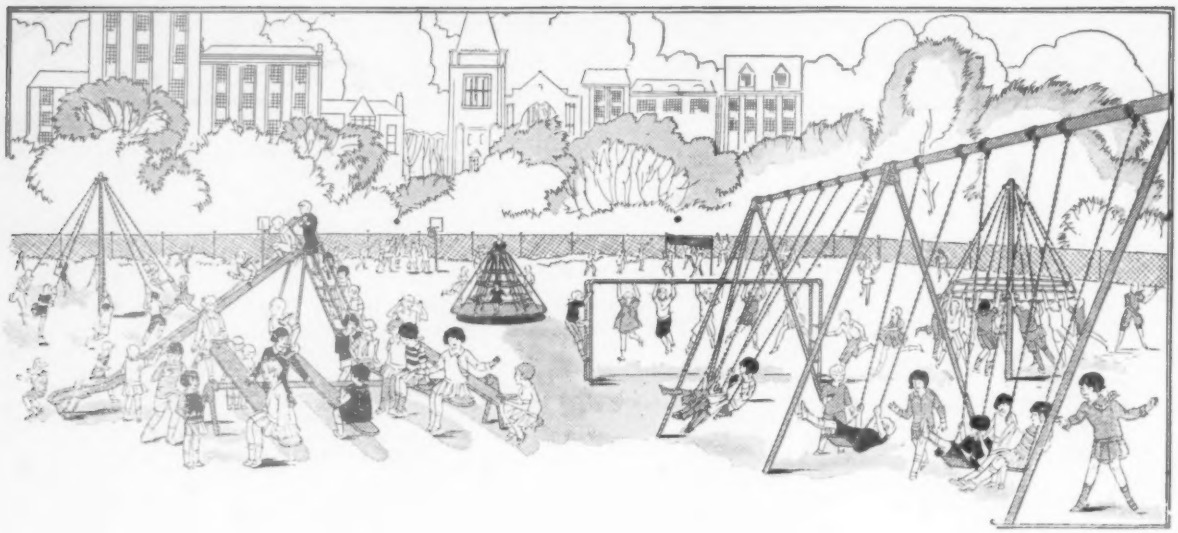

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